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WEEKLY REPORTS
Of the Offices of
WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

January 5, 1924.

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Western Irrigation Agriculture

San Antonio

For the period December 17 to December 31, inclusive, Mr. Ratliffe reports as follows:

During the 16-day period ending December 31, the following meteorological data were recorded:- Maximum temperature 78 on December 29; minimum temperature 50 on the night of December 31; greatest daily range 18 on December 21; precipitation 0.69 inch - a measurable quantity, 0.01 inch or more, having been recorded for six days and a trace recorded for five other days. A heavy fog prevailed practically every forenoon. Field work was attempted on only the last day and half of the period.

The second planting of the "Date of Seeding Flax" test was made on Field F3, and about half an acre was seeded to Canadian field peas at the north end of field D3 on December 29. The small grain variety test was finally seeded on field B4, December 31.

Summary of climatic conditions during 1923
at San Antonio, Texas.

The year 1923 started with a soil moisture deficiency, November and December of 1922 having provided very little rainfall, and none occurred during January until the twenty first of the month. Starting with a shower which netted .21 inch of January 21, a season of wet, cloudy weather began, which continued until March 6. Most of the 6.56 inches of precipitation recorded for this period fell in slow, intermittent showers and practically no run-off from cultivated fields occurred. A sleet and snow storm, which gave a total of .48 inch of precipitation, prevailed from February 3 to 5 and was accompanied by a sudden drop of temperature to 21 degrees. Coming as it did, on the heels of a very warm January which had forced all vegetation into active growth, very serious damage was done by this freeze. Truck growers reported that they suffered greater losses at this time than from any freeze in recent years. During the latter part of February and through the middle of March temperatures above normal prevailed. With the abundance of moisture in the soil this caused all vegetation, not killed by the early February freeze, to recover and resume active growth. Many deciduous trees had practically attained full leaf and some fruit trees were blooming when a sudden cold wave brought the temperature down to 20 degrees the night of March 19; the lowest recorded for the winter. All new growth was killed and the stands of spring planted crops which had emerged at the time were seriously decreased. Practically all truck crops, even including spinach and onions, were killed. Some corn and milo fields had to be replanted.

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San Antonio (continued)

Cloudy weather with frequent showers and occasional good rains continued through May. Some cotton fields were not planted until late. Corn tasseled under favorable conditions and, for the most part, good yields were obtained throughout the San Antonio region. A dry period from May 30 to June 30 seriously reduced the yields from some fields which had been allowed to become unusually weedy during the preceding wet weather.

Notwithstanding the wet spring weather, oats were very lightly infected with rust and satisfactory yields of grain of excellent grade were obtained.

Although three periods of dry weather occurred during the growing season; May 30 to June 30; July 1 to July 19; and July 22 to August 27; respectively; the distribution of moisture was much better than usual and yields higher than average resulted with all crops.

The first picking of cotton was made under ideal conditions and was of high grade. A beating rain, accompanied by a high wind, occurred the evening of August 27 and seriously damaged the grade of all unpicked, open cotton. Dust, raised by the wind and first large drops of rain, completely filled the open locks and this in turn was converted to mud. Open bolls three feet from the ground were literally made black. Rains through the first half of September and during the middle of October made cotton picking after August 27 a very uncertain occupation and caused an increase in the picking charge from \$1.00 per hundred pounds in August to as high as \$3.00 per hundred by the middle of October.

Beginning November 11 a rainy spell started which continued throughout the remainder of the year 1923. During this period of fifty days field work was possible on parts of five days only. For the months of November and December there were 26 cloudy days, 21 partly cloudy days and only 15 clear days. According to the San Antonio office of the Weather Bureau the sun shone only 31 per cent of the possible time during December. Fall and winter preparation of the land for the crop season of 1924 has been practically impossible.

The total rainfall for the year was 33.43 inches -- 6.35 inches more than the average for the last fifteen years. A noteworthy feature in connection with the precipitation for 1923 is that, with only a very few exceptions, the entire amount came in the form of slow, gentle rains or mist, and practically no run-off from cultivated fields occurred. Heavy beating showers of comparatively short duration usually characterize the rainfall of this region. On the whole the climatic conditions of 1923 were disastrous to fruit and truck growers of this region, but much better than average in favor of the field crop farmer.

The last killing frost (20 degrees) in the spring occurred the night of March 19 and the first killing frost (32 degrees) in the fall occurred the night of December 13; giving a frost free period for the season of 269 days. This is ten days longer than the average frost free period as recorded at the Experiment Farm during the past seventeen years.

Geo. T. Ratliffe.

Demonstrations on Reclamation Projects.Newlands

The greater part of the week ending December 29 was given over to the work in connection with the annual report from this office, which was completed on the last day. Much time was also spent in working up the data of the past year's herd testing association and preparing a report for the Salt Lake City office. A detailed analysis of the Testing Association records is being made in an endeavor to strongly emphasize the importance of eliminating inferior producers in a dairy herd. Such information as the feed cost of producing butter fat by cows in the various groups viz. 200 pounds of butter fat and less, 200 to 250 pounds, 250 to 300 pounds, on up, is being worked out from the data collected. The returns are also being determined for each dollar expended for feed in the above groups of cows. These figures which are based on a straight alfalfa hay ration, should be of considerable interest to prospective dairymen here as well as to the membership of the Newlands Project Herd Testing Association.

During the week ending January 5 a trip was made to Davis, California for the purpose of attending a stockmen's meeting. The principal object in attending this meeting was to hear some lectures on the subjects of contagious abortion and sterility of dairy cattle. The knowledge of contagious abortion up to date was very completely presented together with the information regarding methods of combatting the diseases. Dr. Hart, of the University of California has been conducting some very extensive experiments in the control of contagious abortion, and his presentation of the matter was very instructive. The subject of sterility was very thoroughly discussed, together with the methods of overcoming the difficulty, which have been worked out so far. California Bulletin No. 353 describes this work. Considerable time was devoted to the discussion of the effects of various methods of feeding on the fertility of dairy cows. The subject of sterility in dairy cattle is no doubt of greater economic importance than any other one factor with which dairymen have to deal, and it is the purpose of this office to be as helpful in this connection as possible.

L. E. Cline

Shoshone

The first three days of the week ending January 5 were given almost entirely to matters pertaining to the assembling and sale of two carloads of stock hogs which Mr. Goodfellow of Greenwood, Nebraska, bought and loaded out on Thursday. The two cars contained 333 animals which weighed 35,650 pounds, an average of about 107 pounds, the total returns being about \$1800. With the exception of a very few old sows for which he paid 4 cents per pound, the purchase price was 5 cents. The remainder of the week was taken up with an annual report and assisting two farmers' committees to secure information about railway rates and beet acreages and production of the Garland Division, the former committee having been appointed to ascertain what may be done to get rates reduced and the latter to consider how a sugar factory may be located at Powell.

Very cold weather prevailed from Sunday until Friday, temperatures as low as 28 degrees and 25 degrees below zero being recorded on successive days, the former temperature being registered during Monday night.

G. A. Wright.

Uncompahgre

Most of the week ending December 29 was spent in the office completing the annual report and in receiving office callers. An organization was effected on Saturday of this week following a preliminary meeting on Thursday, of a county federation of boys' and girls' clubs. A general meeting was called at which members and leaders of various clubs were present and by-laws adopted. The object of the organization is the general promotion of club work and a better acquaintance among club members.

A part of one day was spent in the interest of the poultry show to be held in Delta next week.

Aside from one day spent in locking up purebred brood sows for a local farmer, one call to inspect a diseased flock of poultry and a part of a day at the Bureau of Reclamation on livestock census work the week ending December 22 was spent in the office assembling data for the annual report, receiving callers and writing one short article for publication. There were 11 office callers.

The week ending January 5 has been largely given to poultry meetings and poultry show. Two meetings were held with State Poultry Specialist, O. C. Krum in the Mt. View district on New Year's day. The poultry show was held on Thursday. Friday and Saturday with a well attended meeting on Saturday afternoon.

The show was the most satisfactory from all standpoints of any that have been held here, although the number of entries was not as large as was expected. A licensed poultry judge made the awards in standard classes and Mr. Krum placed the utility classes. No entry that was disqualified by the standard was considered for utility. Officers and directors were elected for the next year. The secretaryship was left with this office.

Three men from the Bureau of Animal Industry and two men representing the office of the State Veterinarian began work on the tuberculin test of dairy cattle in the Uncompahgre Valley this week, the State Veterinarian having designated the upper half of the valley as a tuberculosis eradication area. A meeting was held with these men on Wednesday to organize the work so that it could be carried on most advantageously.

H. A. Ireland.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

January 12, 1924.

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Western Irrigation Agriculture

Scottsbluff

The report for the week ending January 12 is as follows:

The weather continues cold and cloudy. The average maximum temperature for the period was 33 with a maximum of 44 on the 7th; the average minimum was 9 with a minimum of 2 below on the 12th.

The work at the station has been the usual work of caring for the stock. All of the test lots are doing well. We have had a heavier loss than usual among the lambs. This is the case also among feeders all over the valley.

The cold weather has strengthened the potato market and there have been a few shipments made at 90¢ to \$1.00.

One of the purebred Holsteins belonging to the station herd concluded a 7-days official test this week with a record of 679.6 pounds of milk and 31.096 pounds of butter. This is the record of both milk and butter for the valley.

J. A. Holden.

San Antonio

Mr. Ratliffe reports for the period January 1 to January 12 as follows:

The following meteorological data were recorded for the twelve day period ending January 12: maximum temperature 74, January 9; minimum 20.5, January 5 and 6; greatest daily range 35; and precipitation .01 inch. Five days were recorded as clear, five partly cloudy, and four days cloudy. During the first half of the period extremely wet fogs prevailed each forenoon which greatly retarded drying of the fields to a sufficient extent to permit plowing.

The plowing of rotation plats which should have been completed by the last of November was resumed January 7. Plowing of some fields which should have been done last fall will not be finished before the first part of February, due to unusually wet weather in November and December.

Work on the station has included plowing and disking field AB8 and 18 rotation plats; spreading sulphur on five plats in field AB8 in the cotton rootrot control test; mending three rotation plats; hauling gravel for the repair of farm driveways and for use in the cement floor of a new garage and storage house being constructed at the farm residence; and setting fruit trees in the orchards.

Geo. T. Ratliffe.

Demonstrations on Reclamation Projects.Belle Fourche

During the week ending January 12 one day was spent at Brookings with the State extension workers. A practical solution of the importation of good dairy stock is believed to have been solved by buying grade Holstein calves. Three calves from the eastern part of the state can be shipped by express and laid down on the project for close to \$100. While this procedure will necessarily be a long time project, the difficulty of furnishing considerable money for mature animals is overcome. It is hoped that club members and farmers with little cash will find this plan feasible.

F. E. Miller.

Flathead

The fore part of the week ending January 5 was employed in making out weekly, monthly, annual and expense reports.

The last part of the week was spent at Bozeman at the Annual Extension Conference. I arrived in time to attend meetings beginning 11.00 A. M. Friday, January 4th.

Several farm calls to interest farmers in the Testing Association were made the first of the week and several conferences were held with the Dairy Specialist and a tester candidate from the Veterans Bureau training department to try to get a cow tester.

The entire week ending January 12 was spent at Bozeman attending the Extension Conference; and at Helena on Saturday in conferences with the State Dairy Commissioner, Mr. Webster, the Veterans Bureau regarding placement training of a man to be our Cow Tester, and with Dr. Murdock, U. S. Animal Industry, regarding the tuberculosis work being done in Lake County.

Four reactor cows were found in one dairy herd this week. This brings the total to 13 reactors. Heavy snows in the north end of the county have made it necessary to discontinue work there, but the south end is passable and so the veterans have operated there. The decision of the state supreme court of January 11, declaring void the bill providing appropriations for the general fund of the state may affect the work in this county as it is necessary for the state to uphold its end if the federal men are to be kept at work in this state. Dr. Murdock expects to be here the first of next week to take up this matter further.

Arrangements were made at Bozeman, for a series of poultry meetings next fall for the purpose of helping in the market preparation and marketing problems.

A number of conferences were also held relative to securing a cow tester. Finally arrangements were made with the Veterans Bureau at Helena to have them place one of their men, whom we have had in mind as a man for the job, on placement training with our association until his time of training is over. If this is favorable to the directors, this will save the association nearly \$200 as this man will be taken care of by the Bureau while in training.



Flathead (continued)

The matters taken up at the conference which stand out as high lights, and which were applicable, were discussions on credits for the dairy and wheat farmer by C. C. Davis, Commissioner of Agriculture; a general review of the agricultural conditions and the prospects of future developments, a discussion of bills for the farmers before Congress and their probable effects and personal acquaintance with the Extension people of the state and other officials of the state who are in positions affecting agriculture.

Referring again to the tuberculosis work, I am pleased to report that the Indian Service has a car and interpreter in the field with one of the Veterinarians for work among the Indian population of the project.

L. B. Miller.

North Platte

The entire week ending January 5 was spent at the experiment farm running official test on a Holstein cow that is the dam of two of the bulls now loaned to farmers. The cow was milked 4 times a day, so it was impossible to do any work in the field.

The weather was very bad all week. There was considerable snow and the temperature got down to 34 degrees below zero--the coldest on record at the farm.

The official test on a purebred Holstein cow at the experiment farm was continued during the week ending January 12. The test closed on the 11th. In 7 consecutive days the cow made 31.09 pounds of butter and averaged 97.6 pounds of milk a day. This is the highest record in the valley for either milk or butter.

D. H. Propps.

Shoshone

The week ending January 12 was given almost wholly to the annual report for 1923 and to activities relating to the marketing of live stock. About 2,000 fat lambs and 64 cattle are ready for shipment. Arrangements have been made to load the former on January 14th and the latter on January 15th.

Strong winds drifted snow until travel was impossible over many of the East and West roads, and the trail between Cody and Powell was impassable most of the week.

The price of butterfat continues to be 41¢ at the Powell Creamery. Hay buying was suspended by the Alfalfa Mill, \$13 per ton being the price of baled hay on track at the time. The suspension is expected to be only temporary.

Res
G. A. Wright.

Uncompahgre

On Monday of the week ending January 12 three poultry meetings were held with Mr. Krum, Poultry Specialist, in Delta County at two of which poultry clubs were discussed as well as the subjects of breeding, feeding, marketing, etc. Interest and attendance at these meetings was especially good.

It was necessary to work most of the day on Sunday in sending out exhibits from the poultry show. Sentiment is in favor of a four-day show next year with the last day on Friday to permit exhibitors to take birds home on Saturday which will be considerable advantage to those not living on a railroad, as trucks do not operate on Sunday.

The rest of the week was largely given to organizing and assisting with the tuberculin test work. Five testers are employed in the area designated here, each working separately. The city is furnishing one car and driver, and the county two cars with drivers. Dr. Howe of the Bureau of Animal Industry and Dr. Lamb, State Veterinarian visited the area this week. Snow interfered with the work considerably, blocking some of the roads. By the end of the week about 600 head of cattle had been tested and about 1% of reactors found.

The work will be continued through next week by all five inspectors when the three Bureau of Animal Industry men will go to Denver for the stock show, after which one or more of them will come back to finish the work with the state representatives. The test is meeting with practically no opposition.

H. A. Ireland.

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W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATION ON RECLAMATION PROJECTS.

Vol. XXIV

January 19, 1924.

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Demonstrations on Reclamation Projects.

Belle Fourche

During the week ending January 19, milk tests were run for three farmers. Two livestock club meetings were attended at which club organization was completed and the work outlined for the coming year.

Cold weather, with snow and drifted roads, has caused the postponement of a number of important meetings. These meetings will be again scheduled later, at which time it is hoped an institute can be held with prominent speakers from the State College leading the discussion in such topics as poultry, corn, and dairying. Judging contest in poultry and corn and testing work in milk will be conducted by farmers. Ribbons only will be given for prizes.

Hemorrhagic septicemia has caused the loss of a few sheep in three different feed lots. The sheep are being closely watched but so far the loss has not justified vaccinating. The lambs will be ready for shipment in the next two weeks.

Hay is being loaded f.o.b. Newell for \$12 to \$13 per ton. The hay has been rained on and is somewhat brown in color. This hay goes to eastern dairy sections. Butterfat now brings 47¢ and eggs 30¢ on the local market.

Frank E. Miller.

Flathead

Dr. Murdock, Federal Veterinarian in charge in Montana called Tuesday of the week ending January 19 to go over the situation in regard to tuberculin testing. Two veterinarians are at work around the Mission where snow is not as deep as in the north end of the county. A third veterinarian is working with the Indian Service in the extreme south end of the county. Work in the southern part of the county is expected to be completed by the end of next week. Another reactor was found, making a total of 15.

The transportation problem in the north end has been considered at considerable length. The Reclamation Service has agreed to furnish a team and sled, and one farmer also has promised a team for several days. It is hoped that more farmers with teams available can be secured so that the beef herds in particular may be tested at this time when they are in the feed lots. Funds provided for the testing are practically exhausted, so it will be necessary to appear before the commissioners at the next meeting. According to the general demand for this testing, little trouble is anticipated in being able to secure funds to complete the test in the county.

The directors of the cow testing association met during the week and made plans to start the first of February. The agriculturist was fortunate while at Helena to make arrangements to have the Veterans' Bureau put a man

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF THE HISTORY

OF THE UNITED STATES

ANNUAL REPORT OF THE DEPARTMENT

1900-1901

The Department of the History of the United States has during the year 1900-1901 been engaged in a number of important projects. The first of these was the publication of the *Annals of the American Republics*, a series of volumes which will give a complete and accurate account of the history of the United States from the first settlement to the present time. The second project was the publication of the *Annals of the American Republics*, a series of volumes which will give a complete and accurate account of the history of the United States from the first settlement to the present time. The third project was the publication of the *Annals of the American Republics*, a series of volumes which will give a complete and accurate account of the history of the United States from the first settlement to the present time.

THE UNIVERSITY OF CHICAGO

1900-1901

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Flathead (continued)

in placement training with us for the remaining two months of his training period. This will be a material saving to the association. The man seems well qualified to handle the job of tester. Two circular letters were prepared on the cow testing situation.

One press article was prepared and distributed. Some very advanced lesions of tuberculosis were found in posting reactors, and a tubercular lung and liver placed on exhibit in the agricultural office. This has attracted much attention and comment commending the tuberculin work being done.

L. B. Miller,

Newlands

The severe winter weather has been very trying on all livestock activities for the past two weeks ending January 12. The ground has been covered with snow and temperatures below zero have been very common at night, 18 degrees below zero being the coldest. Livestock owners on the project are quite generally unprepared for protecting stock in such cold weather. No livestock losses, however, have been reported on account of the low temperatures.

Alfalfa hay prices continue around \$16 per ton f.o.b. cars Fallon, with every indication that this price will be considerably higher before spring. Reports from California, where grazing should be good now, are to the effect that the almost total absence of rain together with the low temperatures has resulted in no growth of pastures or of fall grain planting. The dairymen of California are facing very high hay prices which directly affects the Newlands project hay prices. Newlands project hay has almost all been sold, though much of it is awaiting shipment. There is some fear that this part of the project has sold short on hay and a number of dairymen, who are obliged to buy hay are anxious about their source of supply.

The Fernley district has the bulk of its hay on hand, and because of the alfalfa weevil quarantine is not able to ship to California.

Some time is being devoted in interesting Fallon dairymen to take their young stock into the Fernley district until the first crop is harvested. A number of the Fernley farmers have agreed to trade hay for dairy stock. It is hoped that some deals will be put through in this connection to the advantage of both districts.

A trip was made to the Fernley district in company with a Fallon dairyman for the purpose of looking into the possibilities of securing feed for his dairy herd. On this trip several ranchers were interviewed and found much interested in the scheme.

Early in the week ending January 19 an article was contributed to one of the local papers relative to the surplus alfalfa hay in the Fernley district, which is under quarantine. As a result of this article considerable interest was taken by some of the dairymen of the Fallon district as well as the Fernley people.

Considerable time during the week was devoted to securing foundation he is for two Fernley ranchers and arrangements were partially made for transferring a herd of fifty dairy cattle from Fallon to the Fernley district for feeding until the first hay harvest.

Newlands (continued)

A number of the Fernley ranchers are offering attractive feeding contracts for any dairymen who wish to come into that district. The prospect for selling the Fernley hay at a fair price is much better now than at any other time since the quarantine was placed.

L. E. Cline.

Shoshone

Almost half of the week ending January 19 was entirely taken up with the marketing of cattle and sheep. Two carloads of the former and 8 carloads of the latter were assembled and shipped from Powell, Monday and Tuesday. Cold weather and the condition of the roads on account of snow made the assembling unusually difficult.

At a meeting of the Park County Farm Bureau Executive Committee in the Office of the Agriculturist to consider plans for a membership drive, there was presented a report of the activities of the Big Horn Marketing Association. The gross business for 1923 amounted to about \$90,000. After paying all expenses and an assessment of 4% to members who shipped turkeys there were several hundred dollars left in the treasury with which to meet future expenses. Officers for 1924 have been elected and increasing interest in the organization is evident.

G. A. Wright.

Uncompahgre

Poultry work occupied nearly half of the week ending January 19. Five farm flocks have been examined, useless birds taken out or marked, and breeding pens selected. Rations have been balanced for four owners and much valuable advice given regarding breeding and early hatching. The largest flock culled consisted of 180 fowls from which no eggs are being secured. Two other flocks examined are producing nothing. It was emphasized in these cases that proper feeding should precede culling or selection. Several other calls with reference to poultry were made.

Milk tests were run on nine herds, two of which have not been previously tested. One visit was made to a herd offered for sale and two visits were made to men wishing to buy cows.

Assistance has been given the veterinarians who are testing cows for tuberculosis. At the end of the week over 2,400 head had been tested and 27 reactors condemned. Three of the veterinarians leave the first of the coming week for Denver to attend the Western National Stock Show, the other two continuing the tests.

H. A. Ireland.

WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XXIV

January 26, 1924.

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Western Irrigation Agriculture

Newlands

During the month of January, Mr. Knight reports as follows.

"The following table gives the meteorological data recorded at this station for the month of January:

	1924	Aver. for 12 yrs.
Temperature, mean maximum	28.0	43.3
mean minimum	.3	17.6
mean	14.0	30.4
maximum for month	-18.0	58.6
minimum for month	.56	0.0
Precipitation, inches	.7	.70
Wind Velocity, miles per hour	?	2.86
Evaporation, inches	16	1.13
Days, clear	2	13.9
partly cloudy	13	8.4
cloudy		8.8

The mean temperature for the month was 16.4 degrees below the average. In fact it was lower than any year recorded since 1917. The minimum temperature of -18 degrees was also the lowest recorded since 1917. With the exception of four days during the period January 1 to January 27 the maximum temperature never got above the freezing point. The four days with temperature above 32 were as follows:

January 3	- 33	degrees
" 8	- 35	"
" 9	- 36	"
" 18	- 35	"

This exceptionally long cold period froze the ground to a depth of 20 inches or more, making it impossible to continue the plowing or leveling of land. In fact all such field work is now at a standstill.

The teamster is hauling manure and storing it for future use. Other work performed consisted of thawing pipes, cleaning and repairing implements and pruning the orchard.

E. W. Knight.

Demonstrations on Reclamation ProjectsBelle Fourche

One day of the week ending January 26 was spent with an official of the C. & N. W. Ry. in going over the stock yards. The yards are too small and in wet seasons entirely unfit for livestock. The company plans to haul in gravel, drain, and install a watering system as soon as the weather permits in the spring.

The question of putting up ice for summer use on dairy farms and the grading of cream by local stations received considerable attention. If the cream stations will not pay a suitable premium for first quality cream a market can be found in the Hills for this product.

One article was written for publication on breeding pens and a talk given on diseases of poultry. This office in cooperation with the agricultural class of the high school plan to put out a monthly newsletter, the first letter to be ready by February 1. One girls' club of 15 members was organized.

Fourteen cars of lambs finished on the project were shipped to market this week. Butterfat is quoted at 44¢ and eggs 23¢.

Frank E. Miller.

Flathead

During the week ending January 26 a meeting was held with the County Commissioners to report work on tuberculin testing. The \$250 originally appropriated have been practically used up, so the commissioners agreed to finance work until it was finished. They were in favor of the testing more than the first time they were approached on the subject.

A 600 word article on "Relief for Farmers through Export Corporation" was prepared. Also three other articles totalling 312 words.

A cow tester has been definitely secured, and he will be ready to start the first of February.

A large bank in Missoula has closed which has caused about 3 banks, 4 on the project, to suspend business, at least temporarily. It is hoped the Missoula bank will be able to reorganize and thus open all these banks again. Just at present the financial condition is quite strained on the project. It may delay the opening of our Cow Testing Association work.

Two more tuberculin reactor cows were found since the last week's report, making a total of 17. Both were extensive cases.

Butterfat is bringing 47 and 49 cents. Eggs are selling at 35 cents a dozen.

L. B. Miller.

Newlands

Fortunately for the owners of livestock the severe winter weather in this valley moderated during the week ending January 26. According to the check checks passing through the local bank the dairy receipts of the Newlands Project dairymen have been suffering a shrinkage at the rate of \$3,000 per month on account of bad weather. Our time for low temperatures has passed

Newlands (continued)

and a continual improvement in the weather is expected. Feed has been plentiful and there has been no loss of livestock except a small number of new born animals.

The hay situation in the Fernley district is showing much improvement. It has been reported that one of the Fallon hay dealers has made arrangement to grind 2,000 tons of Fernley hay into alfalfa meal for eastern shipments, where there is no quarantine. A recent sale of 200 tons has also been made to a stock man from the Fallon district. A third deal has just been made with a dairyman in the Fallon district in which fifty head of dairy cattle will be taken to Fernley to be fed until the first hay harvest. In this deal dairy cattle were exchanged for hay. A fourth deal is being arranged whereby a herd of thirty Jerseys will be taken to Fernley and fed. In this deal dairy cattle will be exchanged for hay also. During this time an additional foundation Jersey herd was purchased outright and taken to Fernley. The outcome of the efforts so far to relieve the Fernley hay situation has been encouraging, and has resulted so far in placing four foundation herds in the Fernley District during the two weeks period.

One article was contributed to the local press reviewing the December herd testing work. The herd testing report for December shows 42 herds tested including 623 cows. The average production for the month was 667 pounds of milk containing 27.2 pounds of butterfat.

L. E. Cline.

North Platte

During the week ending January 26 two purebred Holstein bulls were placed on farms. One of these was sold from the experiment farm.

At the request of E. P. Cromer of Gering a couple of loads of calves on feed were vaccinated against blackleg.

Sick hogs were reported north of Minature but no symptoms of cholera were found. Calls were received to immunize a couple of herds of hogs but the work was referred to local veterinarians.

Sick sheep were examined on Dutch Flats at the request of the owner, S. J. Davis, who has experienced considerable losses. The deaths seem to be due to mouldy corn. A sample of the corn was taken and sent to the agricultural chemist at Lincoln for examination.

D. H. Propps.

Shoshone

Work on the December milk sheets including summaries and the assembling of data pertaining to prices, products imported and exported, freight rates, etc, occupied a considerable part of the week ending January 26. Assistance was given the Deputy State brand inspector in clearing up the ownership of cattle which formed a part of the recent shipment to Omaha. The difficulty arose from the practice of buying stock without demanding a bill of sale.

The Marketing Association will receive the last installment of turkeys on January 29 and the price to growers will be 23¢ per pound for #1 birds dressed.

Shoshone (continued)

Milk samples from the cows comprising the 8 herds with which Government owned bulls are being used were collected and tested and the milk records for December were completed as well as one yearly herd record for Mr. T. T. Williams. The remaining time was largely given to assisting Mr. O. J. Grace, who will be Agriculturist on the Shoshone project after January 31, to become familiar with work being done by the office and acquainted with representative farmers in several communities.

Warm weather prevailed during the week and the roads are nearly all open to travel again, so that hay and beans are being moved rapidly to loading points. During January the Powell Creamery bought 7,400 pounds of butterfat at an average price of 42½¢ per pound.

G. A. Wright.

Uncompahgre

Assisting the veterinarians who are doing the tuberculin testing of cattle has occupied a large part of the week ending January 26. Three of the testers have been attending the Western National Stock Show at Denver so the work has not been going as fast as previously. An unexpected increase in the percentage of reactors has been encountered and it was decided to make a shipment to the Denver market this week. Thirty-two head were assembled--all that could be put into one car--and billed out on Saturday. It was planned that the Demonstration Agent should accompany this shipment and report on the post mortem findings but other work came up to prevent. There are still four reactors on our hands. The law requires these to be disposed of within 30 days of their discovery.

Three flocks of poultry were examined and breeding pens selected. In one flock a large number of culls was found.

The month's records on nine herds of dairy cows on test were compiled and data sent to herd owners. An average of 779 pounds of milk and 31 pounds of butterfat per cow was shown. The highest herd in milk produced 962 pounds per cow and the highest herd in fat production averaged 40.9 pounds. The highest cow produced 77.8 pounds of fat from 1,432 pounds of milk. She is a grade Jersey.

Four short articles were written for publication and arrangements were made for the transfer of a purebred Jersey bull to a purebred herd at Delta.

H. A. Ireland.



WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE
And

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XXIV

February 2, 1924.

5

Western Irrigation Agriculture.

San Antonio

Mr. Geo. T. Ratliffe reports for the three weeks ending February 2, 1924, as follows:

During the three weeks ending February 2 the maximum temperature was 81, on February 2; minimum temperature 22, on January 20; and greatest daily range 39, on January 19. A measurable quantity of precipitation occurred on six days of the period with a total of .80 inch. The mean temperature for the month of January was 45 degrees, the coldest January at the San Antonio Experiment Farm during the past seventeen years, except January 1918 when a similar mean temperature was recorded. A killing frost occurred fourteen nights of the month. Notwithstanding the relatively cool weather, it has been observed that a number of fruit trees have already blossomed. Total precipitation for the month was .81 inch.

Cultural operations on the rotation and tillage experiment plats were brought up to date during the period, and all cotton stubble on fields C3, C4, D3, and D4, and on the Herbst tract was plowed and harrowed.

Other work performed at the station included planting trees and vines in orchards A1 and B3; pruning fruit trees in all orchards; planting third "date of seeding flax" plat; hauling and sawing cord wood; and hauling gravel. Because of the large number of field larks and rice birds which threatened the late seeded grain variety test, which started emerging January 14, it was necessary to keep a man with a gun in the field for a period of nine days.

Geo. T. Ratliffe.

Scottsbluff

The average maximum temperature for the week ending February 2 was 52 degrees with a maximum of 60 on February 1; the average minimum was 21 with a minimum of 19 on the 28th. No precipitation recorded.

The routine work of caring for the stock has been carried on. The winter has been favorable for feeding. The work on the poultry plant is being continued as rapidly as possible. One unit has been completed and 100 White Leghorn pullets and hens have been purchased.

The results of the hog-feeding tests during the past season have been summarized and are given in the following tables.

Scottsbluff (cont'd)H O G SWinter vs Summer Finishing

A test comparing winter finishing with summer finishing of fall farrowed pigs was conducted. This was run in duplicate lots of 10 shotes except during the pasturing period when the two limited grain lots were thrown together. The following table gives a summary of the winter period.

	SELF FEEDER		2% RATION	
	Lot 1	Lot 2	Lot 3	Lot 4
Number of pits in lot	10	10	10	10
Number of days on test	140	140	140	140
Initial weight	600	800	665	530
Final weight	2,105	2,400	1,320	1,250
Total gains	1,505	1,600	665	720
Average daily gain per pig	1.07	1.14	.47	.51
Pounds feed consumed:				
Corn	6,716	6,764	2,313	2,047
Potatoes	--	--	900	900
Alfalfa	1,400	1,400	1,400	1,400
Pounds feed per 100 pounds gain:				
Corn	446	423	351	285
Potatoes	--	--	135	125
Alfalfa	98	88	211	195

The following table gives a summary of the experiment. The average of the two plats is used. The summer finished lot is given for both periods, together with a total of the two. The prices that prevailed during the experiment are used. Corn is figured at \$1.70 per cwt; barley, \$1.20; potatoes, 25¢ per cwt., and alfalfa hay at \$12.00 per ton. The market value of the hogs when sold is used.



Scottshluff (cont'd)Winter finish vs summer finish of fall farrowed pigs.

		<u>Summer Finished</u>		
	Winter	Winter	Summer	
	Finish	Period	Period	Total
Number of hogs in test	20	20	20	20
Duration of test	days:		108	
Initial weight	lbs.: 1,400	1,185	2,570	1,185
Final weight	lbs.: 4,540	2,520	4,570	4,870
Gains made	lbs.: 3,140	1,385	2,300	3,685
Corn fed	lbs.: 13,430	4,360	6,495	10,855
Potatoes fed	lbs.: --	1,800	--	1,800
Barley fed	lbs.: --	--	1,450	1,450
Alfalfa hay and pasture (Est.)	lbs.: 2,800	2,800	\$30.00	\$46.80
Feed per 100 pounds gain:				
Corn	lbs.: 424	315	282	295
Potatoes	lbs.: --	130	--	49
Barley	lbs.: --	--	63	40
Hay and pasture	lbs.: 90	200	\$1.30	\$1.27
Cost of feed per 100# gain	\$7.74	\$6.88	\$6.85	\$6.88
Feed cost per hog	12.15	4.77	7.88	12.65
			($\text{C } 6\frac{1}{2}$)	
Initial value per pig @ 8¢	5.60	4.72	8.35	4.72
Total cost of hogs	17.75	9.49	16.23	17.37
Market value per 100 pounds	6.50	6.50	8.40	8.40
Receipt per hog	14.75	8.19	20.45	20.45
	Loss	Loss	Profit	Profit
Profit or loss per hog	3.00	1.30	4.22	3.08

As shown from the above table the hogs finished during the winter lost \$3.00 per head, while those finished on pasture made a profit of \$3.08 each. The summer finished lot showed a loss of \$1.30 each for the winter period and a profit of \$4.22 for the summer period.

Summer Finished, Feeders or Winter Finished
of Spring Farrowed Pigs.

A test to obtain data as to the most profitable method of handling spring farrowed pigs was inaugurated in the spring. This test will be followed up for the next two or three years. The test is as follows: One lot is put on self feeder of grain with alfalfa pasture and is finished for market about the last of September. The other lot is fed 2% grain ration on alfalfa pasture. At the end of the pasturing season this 2% grain lot is appraised as feeders and then put in dry lot and finished. The following table gives the result of the two lots for the summer period.



Scottsbluff (cont'd)

Self-Feed vs 2% Corn when on Alfalfa Pasture.

	Self Feeder	2% Corn
Number of hogs in test	37	37
Duration of test days:	136	136
Total initial weight lbs.:	1,190	1,180
Total gains made lbs.:	4,095	2,995
Grain fed:.....		
Corn lbs.:	11,126	4,925
Barley lbs.:	6,118	6,010
Grain fed per 100 pounds gain:		
Corn lbs.:	271	164
Barley lbs.:	149	201
Initial value at 8¢ per pound	95.20	94.40
Total cost of grain	262.55	155.84
Value of pasture	30.00	30.00
Total cost of hogs	387.75	280.24
Final market value at 7.16 ¢wt.	378.40	298.93
Profit or loss per hog	Loss .25	Profit .50

As a rule feeders sell considerably higher than finished hogs. This was not true, however, in the fall of 1923. Had feeder hogs been \$2.00 per cwt. more than finished hogs the feeder lot would have showed a profit of \$2.69 per head. Interest and labor has not been considered here. If the self feeder hogs had been ready to ship two weeks earlier they would have brought \$1.25 per cwt more and would have shown a profit. If spring pigs are to be finished for September market they should be farrowed during March.

The feeder hogs were divided into two lots and put into dry lot on self-feeders of corn. In addition to the corn, one lot was fed tankage from self feeder and the other alfalfa hay from rack. The results from this test are recorded in the following table.



Scottsbluff (continued)

Comparing Tankage with Alfalfa Hay in Supplementing Corn for Fattening Hogs.

		: Lot 1	: Lot 2
		: Tankage	: Alfalfa Hay
Number of hogs in test		: 34 <u>1</u> /	: 35
Duration of test	days	: 57	: 57
Total initial weight	lbs	: 4740	: 4955
Total final weight	lbs	: 6950	: 6600
Total gains made	lbs	: 2210	: 1645
Feed consumed:	lbs	:	:
corn		: 9240	: 8170
tankage		: 900	:
alfalfa		:	: 1225
Amount of feed per 100# gain		:	:
corn	lbs	: 418	: 495
tankage	lbs	: 41	:
alfalfa	lbs	:	: 74
Cost of feed per 100# gain		: 6.76	: 6.52
Total cost of feed #		: 149.25	: 107.66
Initial value of hogs at \$7.16 cwt.		: 339.38	: 354.78
Total cost of hogs		: 488.63	: 462.44
Market value at \$6.00 per cwt.		: 417.00	: 396.00
Loss per hog		: 2.10	: 1.90

1/ One hog from Lot 1 died and is not considered here.

Corn, \$1.25 cwt; hay, \$9.00 ton; tankage \$3.75 cwt.



Scottsbluff (cont'd)

As will be seen from the above table, the tankage fed hogs made faster gains and required less corn per hundred pounds gain than did the hay fed ones. Both lots showed a loss --\$2.10 per hog in Lot 1 and \$1.90 in Lot 2. Had the shotes been sold as feeders even at the low price that prevailed in the fall, the profit would have been \$0.50. It is doubtful if it pays to finish spring pigs in this section, especially if one ships his corn into the Valley.

James A. Holden.

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Belle Fourche.

Two days of the week ending February 2 were spent in inspecting sheep for scab with Dr. Heacock, a federal veterinarian. Several bands of sheep belonging to one party have been dipped from four to five times during the past summer, but stray sheep or infected ranges again caused trouble after the sheep had apparently been cleaned up. The recent inspection showed evidence of scab in a few sheep. This will mean the dipping of all the sheep again early in March.

Plans are being made to hold a livestock sale for club members in March to dispose of surplus stock composed principally of bred gilts.

Seven boys' and girls' clubs have been organized to date. Three adult clubs are also taking up work under state supervision.

A monthly news letter is about ready to be mailed to 650 farmers. This letter, composed of up to date suggestions and short articles on important topics, is put out by the agricultural classes of the Newell high school in cooperation with this office.

Frank E. Miller.

Newlands.

On Friday and Saturday of the week ending February 2 the State Extension Conference was attended at Reno, Nevada, where an extension program for the coming year was being prepared. During this visit a talk was given on Dairy Herd Testing and Dairy Herd Record work on the Newlands Project.

The marketing of livestock from the project for meat purposes is still dependent on the cooperative methods except in cases of a few of the beef feeders, who sell several cars at a time. Miscellaneous shipments of fat cows and calves and some steers together with hogs, which are almost entirely a by-product of the local dairy industry, are constantly being prepared for market. Because this stock is so scattered over the project, it is almost imperative that some central office such as that of the Agriculturist be available for helping in making shipping arrangements. In a great many cases it is possible to induce outside buyers to come to the project and buy the stock. This is always the most satisfactory plan. During the past week an outside buyer was assisted in making a purchase of two carloads of butcher stock, consisting largely of culled out dairy cows. The prices paid were $4\frac{1}{2}\%$ and 5% per pound at Fallon. The activities of

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CONTENTS

Newlands (cont'd)

this office along the lines of cooperative marketing have been instrumental in keeping unscrupulous buyers out of the field. The farmers are kept informed as to the value of their stock and they have the assurance that if the right price is not offered locally, a cooperative shipment can be arranged whereby their stock can be placed on the regular market on its merits at actual cost of shipping.

L. E. Cline.

Uncompahgre.

Considerable time was spent during the week ending February 2 looking up a bull and dairy cows for men wishing to buy. A satisfactory bull was found, but only three cows were located that were considered worth recommending. One of these is a promising Holstein heifer, very richly bred, due to freshen soon. She is reasonably priced, but has not sold.

An interesting meeting of the Farm Bureau Executive Committee was attended on Saturday. At this meeting it was decided to take up the organization of a poultry marketing association, a preliminary meeting being called for the 9th of February for the further discussion of the plan. A purebred sires campaign was endorsed and action taken to push the campaign in a definite way in connection with the next fair at which it is planned to have a Farm Bureau day.

Tuberculin-testing has continued this week, a number of reactors being found. The percentage to date is nearly $1\frac{1}{2}$ and may run over that when all cattle that have been injected are checked. There are frequent inquiries from cattle owners in the lower end of the area who are concerned about whether the available funds are likely to be exhausted before the area is covered.

, One flock of about 100 hens was culled and the owner advised regarding feeding and housing.

H. A. Ireland

The first part of the history of the American people is the story of the early settlers. These were men and women who came to America in search of a better life. They were men of courage and determination, who were willing to risk everything for a new home. They were the pioneers of the American West, the men who first explored the great plains and the mountains. They were the men who first discovered the gold and silver mines of the West. They were the men who first built the great cities of the West. They were the men who first made the American West a part of the American people.

The second part of the history of the American people is the story of the great wars. These were wars of great importance, wars that shaped the destiny of the American people. They were the wars of the American Revolution, the wars of the American Civil War, the wars of the American Indian. They were the wars that defined the American people as a nation. They were the wars that made the American people a people of courage and determination. They were the wars that made the American people a people of freedom and justice. They were the wars that made the American people a people of hope and faith.

The third part of the history of the American people is the story of the great achievements. These were achievements of great importance, achievements that shaped the destiny of the American people. They were the achievements of the American Revolution, the achievements of the American Civil War, the achievements of the American Indian. They were the achievements that defined the American people as a nation. They were the achievements that made the American people a people of courage and determination. They were the achievements that made the American people a people of freedom and justice. They were the achievements that made the American people a people of hope and faith.

The fourth part of the history of the American people is the story of the great future. These were future of great importance, future that shaped the destiny of the American people. They were the future of the American Revolution, the future of the American Civil War, the future of the American Indian. They were the future that defined the American people as a nation. They were the future that made the American people a people of courage and determination. They were the future that made the American people a people of freedom and justice. They were the future that made the American people a people of hope and faith.

W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

February 9, 1924.

6

Western Irrigation Agriculture

Yuma

Mr. Noble reports for the week ending February 3 as follows:

A summary of the meteorological data for the month of January shows the maximum to be 77 degrees; minimum 23 degrees; average mean 51 degrees; precipitation 0; average wind velocity per day 45.3 miles.

While the days have been quite warm, the night temperatures have been around freezing. The minimum temperature for the winter so far was 23 degrees on January 3.

Cotton picking and ginning continues with the gins operating a few days each week to clean up the 1923 crop. Up to the present time 13,700 bales have been ginned on the project. There will undoubtedly be an increase in the cotton acreage this coming season. A large part of this increase will come out of the acreage that has been lying idle the past two years. Land rentals for cotton in 1924 vary from \$15.00 to \$35.00 per acre.

Station work during the last month has consisted of plowing all cotton lands; seeding alfalfa in the rotations; cultivating row planting vetches and peas; repairing and painting farm buildings; repairing irrigation system and grading roads.

E. G. Noble

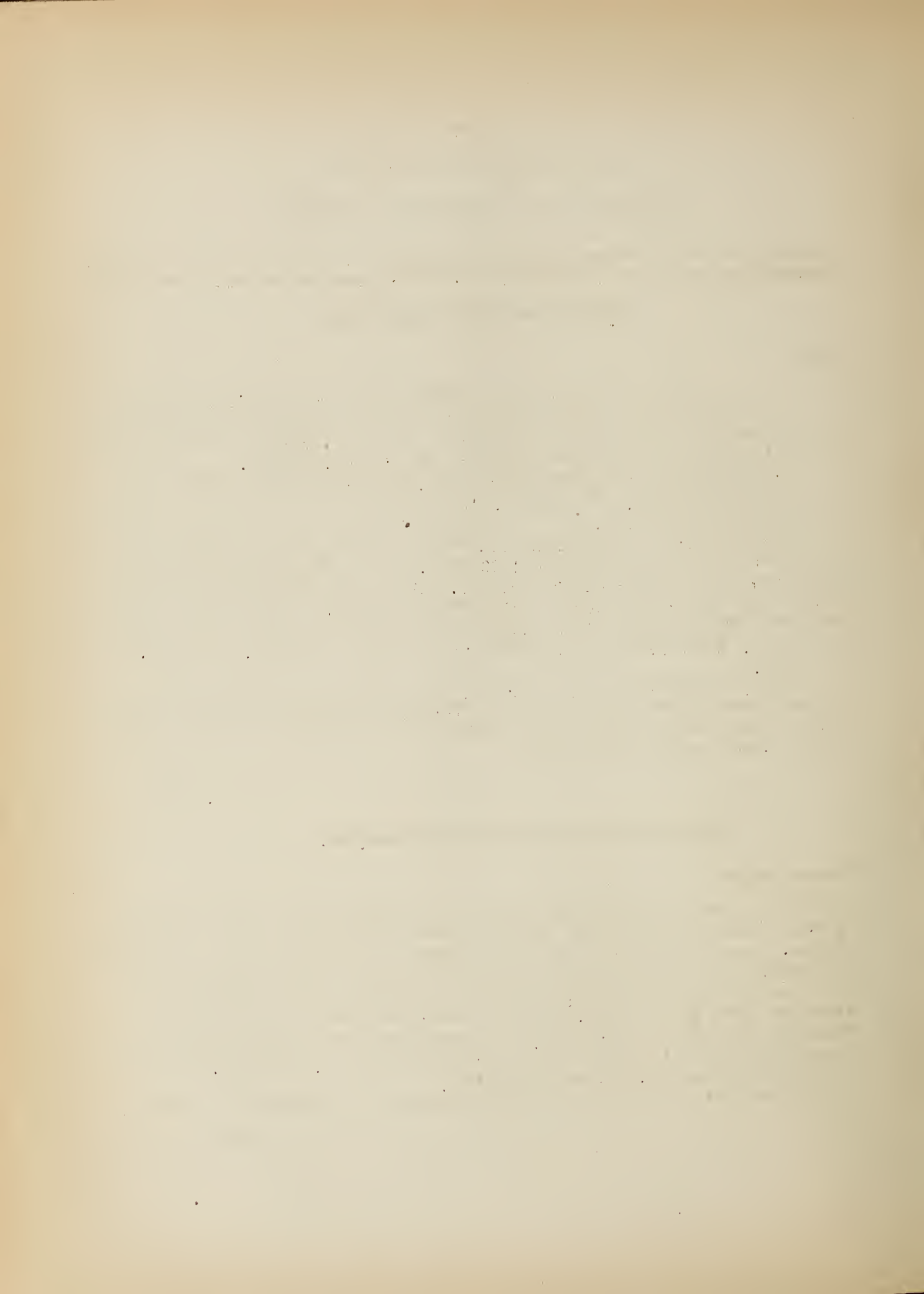
Demonstrations on Reclamation Projects.

Belle Fourche

During the week ending February 9 community meetings were attended at Vale and South Hilen with an attendance of 123. Boys' and girls' club meetings were held at Vale and at the Milberg and Keen farms. One article was written for publication on club work. A news letter was mailed to 650 farmers. One hog vaccination demonstration was performed at Frank Edward's farm. A livestock leaders' conference was planned for February 16 at Vale and Newell. A short course for farmers lasting two days is scheduled for the middle of March. Poultry, dairying, and corn are the three subjects to be emphasized.

Butterfat is now quoted at 42¢ and eggs 25¢ on the local markets.

Frank E. Miller.



Newlands

During the week ending February 2 assistance was rendered in the placing of one Holstein herd of twenty cows and three registered bulls. One very fine Jersey bull of the St. Maws breeding will be shipped from Oregon. Four additional members with 112 cows were added to the Herd Testing Association during the week. It is very encouraging to have the dairymen of their own accord apply for membership in the association. It shows the excellent results of constant agitation and publicity along this line for a number of years.

On Saturday a meeting was arranged for the poultry men of the Sperry Products Co. A very interesting and helpful meeting was held. Feeding problems and the raising of baby chicks were the principal items discussed.

Weather conditions on the Newlands project have moderated considerably. All snow has melted away and the minimum temperatures have averaged only 28 degrees for the week.

Alfalfa hay shipping is the principal activity just now. The surplus of last year's hay crop is practically all sold and only four or five thousand tons remain to be shipped. A price of \$18.00 f.o.b. cars was paid for a day or two. This price has declined to \$17.00 with a tendency downward.

One cooperative shipment of culled out dairy cattle was made. The cattle were assembled and sold at Fallon to an outside buyer. Prices ranged from 4¢ to 5¢ per pound depending on quality.

L. E. Cline.

North Platte

Most of the week ending February 2 was devoted to dairy short courses at Lingle and Veteran, Wyo. The courses were put on in cooperation with Mr. Tuperduis, the county agent, and Professor Sheldon, Smith-Hughes teacher at Lingle. Courses in poultry were given the previous week by the poultry specialist for the University of Wyoming. The attendance at Veteran consisted principally of ex-service men on homesteads in that vicinity.

The subjects handled in the dairy courses were: "The Magnitude and Importance of the Dairy Industry"; "Milk and Milk Products"; "Developing a Dairy Herd"; "Feeding"; "Care and Management"; "Dairy Sanitation".

The dairy short course at Veteran, Wyo., closed the first part of the week ending February 9. The attendance was fairly satisfactory, consisting mostly of ex-service men.

Two local purebred hog sales were attended during the week. Bred sows and gilts brought an average of about \$35.00. About one-third of the buyers paid cash.

Four culling demonstrations were given and about 700 hens were handled. Some work was done in feeding laying hens.

Sick hogs were examined in two herds but no symptoms of cholera were found. Round worms seemed to be the cause of the trouble.

D. H. Propps.

Flathead

Weather has been generally warm during the week ending February 2 with the result that much of the snow is gone, especially in the south end of the Valley and the roads are next to impassable. There was practically no freezing weather this week.

Tabulation of data from the T. E. 22's handed in by Veterinarians was made to get the numbers of cows and heifers in each of the several parts of the project. This was calculated for each breed of cattle reported.

This data was of interest in connection with a conference with Mr. Beardsley of the J. G. Cherry Co. relative to creameries and cheese factories on the project.

In a conference with Mr. Moody it was decided to work on the idea of getting representatives of the various farmer and business men's organizations at some central point for a meeting to take up the matter of a several year agricultural program for the project.

An article on Farm Credit, reporting the address of Mr. Davis, Commissioner of Agriculture, was prepared.

According to data compiled by Inspector in Charge of Tuberculosis Eradication in the state, approximately 7,000 head had been tested up to January 31. Total reactors found were 20.

During the week ending February 2 the weather continued warm and roads are as bad as last week, only more so, in the north end of the project.

The first two days were used in tuberculin work arranging for transportation and starting the veterinarian in a new section where considerable range cattle must be tested before they go to the mountains again. Car travel there was impossible except on the main road used as stage road.

The cow tester of the Lake Co. Cooperative Cow Testing Association, reported on Wednesday, and the next three days were devoted largely to that line of work; providing equipment and transportation, conduct of work, and farm calls. The tester reported to the President of the Association Friday for duty. This tester is being placed here by the Veterans' Bureau as a trainee, and is in the pay of the Bureau until April 1. This will save practically two months' wages for the Association. Several days work are still to be arranged for, so that the exact number of cows cannot be reported at this time. There will be at least 400, however.

Conferences were conducted with Mr. Moody, Project Manager, and Mr. Benson, Immigration and Industry representative of the Northern Pacific, relative to the agricultural program for the project. Mr. Benson will be on the project three days the last of February on that line of work. The Kiwanis, and three farmers' organizations have already indicated their desire for a meeting to map out a program for several years. This meeting will be called by this office about the first of March, immediately following Mr. Benson's meetings.

Plans are being made to have Mr. Johnson of the Western Dairy Office, in Lake County on March 12 to 15. Mr. Webster, state dairy commissioner, will also be a speaker at these meetings.

Eggs are selling at 35 cents. Butterfat 45 and 47 cents, a 2 cent drop from price prevailing for months here.

L. B. Miller.



W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

February 16, 1924.

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Western Irrigation Agriculture

San Antonio

Mr. Ratliffe reports for the two weeks ending February 16 as follows:

"The two weeks ending February 16 were favorable for field operations and all February plowing was completed. Field peas and rye, grown on rotation plats to be turned under as green manure, made very little growth during the winter. The development of bacterial nodules on the pea roots was very scant. Precipitation during the two weeks amounted to .21 inch. The maximum temperature recorded was 81, February 3; minimum 27, February 5; and greatest daily range 39. Nine days were clear, two partly cloudy, and three cloudy.

Plowing of fields C5 and D4 was completed. All fallow and recently plowed fields and plats were disked.

All orchards were sprayed with liquid lime sulphur. Other station operations included work on new grape trellises in orchard B3; restenciling and setting orchard stakes; and composting soil.

Geo. T. Ratliffe.

Demonstrations on Reclamation Projects.

Belle Fourche

During the week ending February 16 two days were spent on sheep club and dairy-calf club organization work. At present nine boys and girls have signed up for a registered Ayrshire dairy calf club, the heifers being obtained from the three project herds of registered Ayrshires at prices ranging from \$50 to \$125 per head. Two local banks have agreed to lend all the financial assistance necessary to insure a successful beginning.

Last year four club members started with registered sheep and with the exception of two ewes shipped in late all had fine success raising from two to three lambs. This winter more will be started in the registered sheep business. To take advantage of club members not able to finance registered stock, a special club will be formed of common farm sheep with the understanding that these sheep are to be sold in the fall and registered sheep purchased.

Almost impassable roads caused the postponement of a livestock meeting at Vale and only 12 were out for the meeting at Newell. Mr. Feebink, livestock specialist from Brookings, came by train with county agent Ellison for these meetings.

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Flathead

Mr. Miller reports warm weather and snow practically all gone for the week ending February 16. The roads are becoming fairly passable on the more traveled parts, but plenty of bad mud holes.

Dr. McDonald reported back to the County for tuberculin testing, making a total of three veterinarians now at work. Two are in the range regions attempting to test those cattle before they return to the ranges. Horse-back is the means of transportation in that region. Considerable time was spent with the veterinarians on various phases of the work, including transportation to locations, assisting in the injections and conferences as to procedures.

The former south end of Flathead County farm bureau met last Saturday and as a result a Lake County organization was started. The plan is to get all the farmer organizations in the county to affiliate with each other to form a county farm bureau, so-called, although it will for the present be merely a local proposition. The project program plan was presented to the meeting and met with much favor. Delegates to the meeting were elected.

On February 29th, a meeting has been called at Ronan as a result of several conferences between Mr. Moody and myself. This meeting will have representatives from the various farm and town organizations and is for the purpose of coming to some agreement as to the best Agricultural program for the project for the next several years. Indications are that this will be an interesting meeting, and will be well attended.

As a result of the Kiwanis meeting reported last week, the Polson citizens have agreed to finance a carload of dairy cattle at this time, and more later. The present carload is to be Guernseys.

At the Reservoir Valley Farm Bureau the matter of forming a Holstein breeders' association was considered at length, and the decision was made to call a meeting for the purpose of organizing at the time of the meeting held by Mr. Benson, Immigration Agent at Polson, February 28. He is holding a three day series of meetings at that time and will be at the Ronan meeting on the 29th.

F. B. Miller

Neerlands

, During the week ending February 16 one more foundation herd of twelve cows was taken to the Fernley district. Considerable interest has been shown among prospective dairymen recently and much time is required in looking up foundation herds. From the interest, which has been developed, there will be no doubt more herds taken to the Fernley district, before the growing season.

One article was prepared for the local paper on herd record summaries for 1923.

The entire week was largely given over to miscellaneous office visits and visits to farms. Some time was also required for correspondence, answering inquiries from prospective settlers. Many such inquiries are received direct and some are referred to this office.

During the week there were forty-four calls for assistance consisting mainly of visits to the office and 30 home visits were made.

L.E. Cline.

North Platte

The greater part of the week ending February 16 was spent in poultry work. A breeding pen of 50 hens was selected from the foundation stock of white leghorns at the Experiment Farm. Four very fine cockerels came from the Beltsville Experiment Farm to mate with these hens.

Some work will be started with turkeys at the Experiment Farm this year. Six mammoth bronze hens and a gobbler were selected at Torrington and brought to the farm the latter part of the week.

Breeding pens were selected and culling demonstrations given on two farms in Sheep Creek community in Sioux county. This community is some distance from the railroad and poultry raising is practiced quite extensively on a number of the farms. Flocks of 300 or more leghorns are not at all unusual.

Mr. Summers, the poultry specialist from Lincoln, spent two days in the Valley. Meetings were held at Melbeta and at Sunflower school. Such topics as incubation, brooding, breeding, feeding and marketing were discussed. Mr. Summers spent some time looking over the new poultry plant at the Experiment Farm.

Two purebred hogs sales were attended this week. Bred sows sold for only a little above market prices and the demand was very limited.

A few cases of sickness among hogs were reported. Most of the trouble seems to be bronchial pneumonia or "flu", probably due to frequent sudden changes in the weather and hogs bunching up in sleeping quarters. Only a slight losses have been reported.

D. H. Propps.

Uncompahgre

Seven meetings attended during the week ending February 9 have occupied a large share of the time. On Tuesday a meeting of the Delta City Council was attended and the work being done at Montrose toward the control of tuberculosis was discussed. Delta will adopt the Montrose ordinance with some minor changes. The Farmers' Union is interested in making the work county-wide and has arranged for a meeting at Delta next week at which the demonstration agent has been invited to discuss the work in Montrose County. The testing work in the latter county has been suspended temporarily on account of the exhaustion of available funds but an effort will be made to raise sufficient money locally to finish the work in the area described. A meeting of business men was attended in Delta on Wednesday to discuss this same work with them.

The monthly meeting of the Garnet Mesa Community Club was attended with one of the State Specialists on Wednesday night. Club work and a poultry marketing association were brought up. Two meetings were held in connection with the Olathe Corn and Potato Show. This show was of three days duration this year instead of one, as formerly and a program was arranged with it covering a variety of subjects, "Dairy Profits" was the subject assigned to this office.

Uncompahgre (continued)

Exhibits at the show this year were the best that have ever been shown both in potatoes and corn, showing a marked improvement in both quality and quantity.

On Friday night a meeting was held in Delta County of representatives from all parts of the county to organize a central committee, elected from the various community clubs of the county. The meeting was well attended and interest in the proposed plan was very good. Boys' and Girls' club work and community program for adult clubs was discussed. On Saturday a meeting was held in Montrose to organize a cooperative poultry and egg marketing association. About 65 poultry raisers were present. The manager of the State Exchange explained the plan and an organization committee was elected to complete the local organization.

Three flocks of poultry were examined and breeding pens selected. Miscellaneous work occupies the rest of the week.

H. A. Ireland.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

February 23, 1924.

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Demonstrations on Reclamation Projects

Belle Fourche

Five of the project's leading Duroc breeders held sales during the week ending February 23. The E. M. Holtry and Berry & Wright sale was held at Whitewood. This sale proved a disappointment to the breeders and after selling half of the stock advertised the sale was called off. Prices ranged from \$16 for bred gilts to \$40 for sows.

The Kendall & Gladden sale held at Vale slumped at the close but fair prices were generally received. The top sow sold for \$82.50 with other sows selling from \$40 to \$65, a fine boar for \$57.50 and bred gilts from \$16 to \$25. The hogs sold were as good as can be purchased anywhere and the big drop in sale prices from a year ago is due to the slump in market and the refusal of farmers generally to pay extreme prices for stock to raise feeder pigs.

Breeding pens of poultry were selected from farm flocks at five farms and seven standard bred cockerels delivered to four farmers. Setting eggs were purchased for two other farmers. Selecting hatching eggs and the operation of incubators was explained to club members.

Some time was spent in inspecting hay to be shipped to Wisconsin. To date sixty carloads have left Newell and Nisland for the East. Prices for second and third cutting alfalfa range from \$12 to \$15 per ton f.o.b. here.

Frank E. Miller.

Flathead

During the week ending February 23 cloudy and somewhat rainy weather predominated with the result that roads are poor for cars. One or two farmers have started to plow as the frost is practically out of the ground.

A horticulture meeting was held at Polson on Monday with an afternoon and evening session. Road conditions kept the crowd down to about 25. Four men from the Extension Service and state department presented the work.

The Lake County Bankers Association met on Wednesday and had invited farmers and town business men to attend. The agriculturist presented briefly some phases of the work and explained the meeting to be held on February 29 at Ronan to work out a program. Delegates were appointed from the Association to attend the Ronan meeting.

As a result of the Farm Bureau meeting at Reservoir Valley the previous week, a number of farmers gathered at Polson on Saturday and organized the Lake County Holstein-Friesian Association. The Guernsey Breeders have organized in the north end of the project, so now two breeds are being more systematically developed on the project.

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Flathead

Four more tubercular cattle have been found since the last report. Three of these were in a range herd. A total of 24 in approximately 8,000 tested have been reactors--a very favorable percentage for the project.

Four press articles totaling 1,077 words were prepared and distributed during the week.

Secretarial work for the newly organized Lake County Farm Bureau was performed. Also a circular letter was prepared announcing the meeting for February 29 and extending invitations to a limited and representative number.

Requests for assistance with sick ewes, and testing cream samples were attended to. Numerous office calls for varied information were received.

The cow tester is now on the third week of his duties in the Association and reports conditions favorable. Some very good herds have been tested, one of 10 cows averaging 1.235 pounds butterfat per day per cow.

L. B. Miller.

Minidoka

During the week ending February 16 two important conferences were held, one with Mr. Rinehart, Extension Field Husbandman of the University of Idaho, College of Agriculture, in which Mr. Rinehart and the agriculturist outlined the plans and made the rules for the Idaho State Ton Litter Contest.

Mr. Barber, County Agent, and Mr. Rinehart accompanied the agriculturist on his visit to flocks of sheep which had been seen the week before and Mr. Rinehart agreed with the agriculturist that the trouble was largely one of feeding or rather lack of a balanced ration, but it was decided to call Dr. Hoffman and Dr. Dave, Federal and State Sheep Inspectors. They came on Saturday and with the agriculturist visited these flocks. After careful examination they pronounced the trouble to be "pernicious anemia" due to malnutrition. They recommended feeding a ration of mixed grains with the hay. In two of these flocks this grain feeding had already been started about ten days before. The losses in dead and sick ewes ran from fourteen to twenty five per cent of the flocks. These were old ewes-castoffs from a range flock.

During the week ending February 23 the agriculturist for the first time being in the work, had been able to attend a conference of the Idaho County Agents. This was a conference on the program of work for this season. The agriculturist's part of the conference was a discussion of the Ton Litter Contest.

Some time was spent this week in preparing a news article on the farm flock of sheep.

J. T. Montgomery.

Newlands

During the week ending February 23 the outbreak of foot and mouth disease in the San Francisco bay district was the principal topic discussed here. The disease broke out in the outskirts of Berkeley, California. Its

Newlands (continued)

origin has not been exactly determined, though there is some suspicion that it came from old Mexico.

The Nevada State Quarantine officers immediately placed a rigid quarantine on all livestock coming from California and on all things associated with livestock such as used implements, containers etc. and hay and straw. This action of the quarantine board immediately stopped cream shipments from Nevada to California points because the empty cream cans could not be returned. This affected approximately eighty cans of cream per day out of Fallon. The interference of the cream shipments however, is not a serious handicap as the local creamery and creameries in Reno can handle the local product.

The local poultry industry has been affected more than any other industry. The importation of baby chicks from California had just started. This district, heretofore has imported about 40,000 baby chicks each spring. The prospects were that this number would be almost doubled this season. Unless the quarantine can be modified to permit baby chicks to enter the state by the last of March, the poultry industry will be practically at a standstill during the year.

Every possibility of foot and mouth disease infection in this state has been traced down and a thorough inspection made, and no infection has been found. This office is spending considerable time cooperating with the state quarantine officer in dispensing information and in helping to carry out quarantine measures.

One article was prepared for the Reclamation Record on the development of the turkey industry on the Newlands project.

L. E. Cline.

North Platte

During the week ending February 23, two culling demonstrations were given and breeding pens selected. A few Buff Orpington hens were purchased and brought to the experiment farm to use for hatching turkey eggs. Interest in poultry is rapidly increasing in the Valley and numerous calls for assistance are received each week.

Stormy weather prevailed most of the week and roads were bad. Considerable time was spent with the livestock at the experiment farm.

D. W. Propps.

Uncompahgre

All roads except those that have been graveled were nearly impassable during the week ending February 16 making travel difficult. Three calls were made to select breeding pens of poultry and advise regarding hatching and feeding. There has been an unusual demand for good breeding stock this year, many breeders having sold all their surplus early in the season. Local hatcheries have also reported that business is good.

Four Jersey bulls of good breeding were found at Grand Junction and reported to a prospective bull club near Delta. Only one bull will be needed if the club is formed. A purebred Jersey cow was selected for a

Uncompahgre (continued)

Montrose dairyman who paid \$226 for her delivered at his farm, subject to tuberculin test which she passed. She was a three-year-old cow of fine type, just due to give birth to a calf.

A meeting was attended at Delta and tuberculin-testing discussed. Delta County dairymen are interested in securing a tuberculosis-eradication area under state and federal test as Montrose County has done. Petitions will be circulated to ask for this at an early date. In the meantime the city of Delta will pass an ordinance requiring that all cows contributing to the city milk supply, be tested. The directors of the local poultry association met at Delta on Wednesday and named Delta, January 6-9, as place and time for the next show. The directors voted to foster boys' and girls' poultry clubs in every way possible. A meeting of club leaders was attended at Olathe Thursday night.

On Saturday a meeting of the "Central Board" of Delta County community clubs was attended with E. D. Smith, District Director of Extension from the Agricultural College, and the schedules of all Extension Specialists coming to Delta County for the year, arranged. At the same time a meeting of club leaders was arranged for State Club Leader Miss Sheridan in Delta next week.

The meeting of club leaders in Delta on Monday of the week ending February 23 was well attended, 35 being present at a luncheon at noon and more for the meeting following. A community meeting near Delta was attended that night and the next day a meeting was held at one of the Delta schools and another in a rural district near town. Interest in club work seems to be stronger than ever before.

Four breeding pens of poultry were selected and purebred cockerels secured for two new breeders.

Monthly milk tests were run on Wednesday on eight herds. Records for the month, on six herds, based on the one day test are as follows.

Herd No.	No. Cows.	Average Pounds Milk	Average Pounds fat	
1.	7	708.4	20.4	A. Nash
2.	5	415.2	17.9	Daly
3.	7	616.6	20.9	Brower
4.	3.	879.6	29.8	Kettle
5.	3.	541.3	27.9	Marks
6.	4	790.6	29.8	Price

One day was spent with County Agent King and two members of the organization committee of the Montrose Poultry Marketing Association in interviewing poultrymen of Delta Hotchkiss & Cedaredge in Delta County in regard to organization of local associations in those places. Sentiment was favorable to the plan in every place visited and meetings were arranged for early in March to take up the matter.

A meeting of County Club members and leaders was held in Montrose on Saturday at which time enrollment cards were given out to those wishing to enroll for work in any of the clubs this year. Several clubs are already organized and their leaders selected.

H. A. Ireland.

W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

March 1, 1924.

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Demonstrations on Reclamation Projects

Belle Fourche

On Friday of the week ending March 1, 16 carloads of fat stock left the Newell station for market. The trainload consisted of 8 cars of lambs, 1 car of ewes, and 9 cars of steers. With the market approaching \$15 per 100 for lambs the feeders of the project will reap big profit.

To date 60 carloads of hay have left the project for eastern points. The price for the bulk of the hay is \$13 per ton f.o.b. Newell.

A start has been made towards the organization of a cow testing association. Five dairymen have signed their names to support and join such an association if one is formed. It is believed that enough dairymen can be secured to make such an association possible in the near future.

Sixteen boys and girls are about ready to get bred ewes for sheep club work. Eleven are expected to get their registered Ayrshire dairy calves this week, while about a dozen will continue in pig clubs started last year.

Frank E. Miller.

Flathead

Most of the week ending March 1 was occupied in participating in a series of meetings on the project. Mr. E. F. Benson of the N. P. R. R. Immigration and Industry department was the principal speaker and was assisted by one or more men representing seed houses. Mr. Benson spoke chiefly on the prospects of the valley; of immigration and of boosting the country to keep new settler prospects. The seed house men spoke on the seed pea and bean business principally, and reported considerable acreage signed. Mr. W. Larson of Charlo, real estate dealer spoke briefly and interestingly at several meetings on results he had experienced in placing settlers. The agriculturist announced and explained various meetings planned for the coming year, and touched on various topics as occasion required; the Coulter Bill and McNary-Haugen bill being presented several times.

One seed house man reports 828 acres of peas contracted around St. Ignatius by his firm. There are 20 farmers represented. The area was localized this year so as to make it possible to get the necessary machinery to harvest and thresh the peas satisfactorily. Another firm is now signing acreage, but their contracts have not yet been ascertained.

Friday afternoon a meeting was held at Ronan on the call of the project manager and myself to discuss agricultural conditions and a program for the project. Seventeen organizations were represented, and 70 people were in attendance. The meeting discussed at length the advisability of

Flathead (continued)

of organizing a central organization in Lake County (which includes nearly all of the project) and action to that end was finally taken. Not only the farmers association of various names and creeds will be members, but also the Kiwanis, Lake County Bankers, and other commercial civil and industrial organizations. Two delegates from each organization will attend meetings of the Lake County Association. The final organization meeting will be held the 31st of March, and the matter of the agricultural and industrial program of the project considered. In view of the forming of this new organization whose duty it will be to take up just such matters, it was deemed advisable not to go into the agricultural program extensively at the Friday meeting, although it was the wish of the agriculturist at the time of calling the meeting that this matter be taken up.

Milk and cream samples were tested for one farmer during the week. Two other ranchers made arrangements to send in samples of their herds the coming week. Butterfat is selling at 44 and 46 cents, as it did the week previous. Eggs bring 20 cents locally.

Considerable time was put on the tuberculin testing work with the three veterinarians who reported in from the ranges for the month and requested autos for transportation as the roads were now passable, and the horseback method rather tedious. The 25th reactor was found in the county, and this one use also in a range herd. Two cars were finally found available for use by the veterinarians, although the road conditions in some sections made the owners rather unwilling to let their cars out for \$2.00 a day.

L. B. Miller.

Newlands

During the week ending March 1 the foot and mouth disease outbreak in California continued to be the principal subject of conversation. An article was contributed to each of the two local papers for the purpose of acquainting project farmers with various phases of the disease and the California situation up to date. One day was spent in Reno, Nevada, conferring with the State Quarantine officials, relative to quarantine measures in effect in the state.

A Federal veterinarian has established headquarters in Fallon, Nevada and will carefully inspect every livestock ranch, so that we may be assured against any spread of the disease in this valley.

A few days after the outbreak in California local dairymen were still receiving a large number of empty cream cans from Sacramento, Oakland, San Francisco, Modesto and Oakdale, California. The empty cream cans returning to this locality were considered a possible source of infection. Hence the routine inspection of all our dairy herds.

The marketing of cream has been adjusted, and all butter fat is now made into butter within the state.

If it is possible to keep the foot and mouth disease out of the project, local dairymen should eventually be placed to considerable advantage during the present year. This district will be well supplied with irrigation water and good feeding conditions are assured, while practically all other irrigated districts as well as dry farming districts to the west and south of us are facing a severe water shortage. These conditions together with the foot and mouth disease outbreak are quite certain to result in a good strong market for dairy products.

L. E. Cline.

Minidoka

The principal matter of interest in the work of the week ending March 1 was the poultrymen's attempt to form an organization to affiliate themselves with the Idaho Egg Marketing Association of Utah. The results of the attempt were only mediocre. The poultrymen seemed willing to go into the matter and market their eggs cooperatively but wanted somebody else to do the work. It remains to be seen how well it will be done.

J. T. Montecmery.

North Platte

During the week ending March 1 trips were made to Torrington, Wyo., and to Bridgerport where conferences were held with the county agents in regard to demonstration work. Plans were completed for evening meetings to be held this spring. A dairy short course will begin in Goshen county next week. This will be put on in cooperation with the county agent and the Smith-Hughes teacher at Torrington.

Two poultry culling demonstrations were given and a breeding pen of Rhode Island Reds was selected. Blank forms were prepared for keeping records of farm flocks.

Hogs were sprayed at the experiment farm. Farrowing pens were scrubbed and scalded and everything made ready for farrowing time which begins at the farm about March 1.

Visitors at the farm during the week included P. H. Dupertuis, county agent of Goshen county, and D. J. Robertson, livestock specialist, University of Wyoming.

D. H. Propps.

Uncompahgre

Poultry work occupied more than half of the week ending March 1. Culling work is not stressed at this season of the year but frequent calls are received to cull flocks that were not culled last fall and to select breeding pens. It has been emphasized that both of these things are better done in the early fall but many flock owners who neglected it then are wanting it done now and such calls are being answered, partly for the sake of checking upon hatching, feeding and vermin control. Practically every flock examined is badly louse-infested and owners are urged to treat all birds thoroughly and do it before the young chicks are hatched. Ten flocks were visited this week and one meeting attended with Mr. King to discuss a marketing organization. A member of the organization committee of Montrose also attended the meeting. One poultry club was started.

A dairy sale was attended in Delta County with a project farmer but no cows purchased as stock had not been tuberculin tested and the owner would not sell subject to test. Registered Holstein cows brought \$110 to \$150 a head. Purebred hogs at the same sale brought very low prices.



Uncompahgre

The first meeting of the Board of Directors of the Delta County Fair Association was attended in the interest of the club department. The directors all seemed to be in sympathy with the club work and in favor of making this department one of the features of the fair.

Action was taken this week by the local Cattle and Horse Growers' Association to protect livestock of this locality from any possible invasion of foot and mouth disease from California by asking the State Veterinarian to place an embargo on livestock and certain products from California. This request has been complied with.

Tuberculin testing in the area as first described is practically completed and will be finished next week. Petitions have been sent to Delta County for circulation there, for an area to include the remainder of the Uncompahgre project and some adjacent territory.

H. A. Ireland.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE
And

DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

March 8, 1924.

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Demonstrations on Reclamation Projects

Belle Fourche

Roads were practically impassable during the week ending March 8 and prevented travel by automobile except for one day.

The second monthly news letter of four pages was mailed during the week. Two articles were written for publication on cow-testing association work and docking and castrating lambs.

Considerable progress was made with the organization of livestock clubs for boys and girls. To date we have the following enrollment:

Sheep clubs	-	18	members
Dairy-calf-	-	11	"
Sow-litter-	-	11	"
Poultry-	-	14	"
Girls clubs-	-	23	"
Farm manage-			
ment	-	22	"

Various crop clubs will be organized next month.

The final program for the two days short-course to be held in Newell the 14th and 15th of March was completed. Livestock will be considered exclusively in talks and demonstrations.

H. D. McCullough, of the State extension force of Brookings, spent one day on the project meeting the members and leaders of the three farm management clubs.

Frank E. Miller.

Flathead

During the week ending March 8 the weather continued mild, but was supplied with plenty of moisture in the form of mist, rain and snow flurries with the result that roads are not yet in good condition. Field work such as plowing is rather general on good days.

Most of the week was used in office work of various kinds including reports of all kinds, both for this office directly and for the field tuberculin work being carried on through this office; numerous office calls for assistance and consultation of various natures, and arranging and advertising through phone and personal letters the dairy meeting to be held by Mr. Chris Johnson of Salt Lake City.

The cow tester completed his first month's work with 21 herds. The highest producer is a Holstein cow, producing 60 pounds of milk testing 4% or 2.4 pounds of fat a day. The owner has visited the office since the

Flathead (continued)

test to confer regarding rations, and a ration for the cow has been prepared by this office. The farmers have been pleased with the work of the tester and some have been distinctly surprised regarding their cows.

Eggs sold for $17\frac{1}{2}$ cents on Saturday.

L. B. Miller.

Minidoka

Two events of special importance came up during the week ending March 8. The farmer's drive to secure enough members to make the Egg Marketing Association a possibility, succeeded in getting just about one-half enough flocks signed up. The committee on organization decided to spend ten more days trying to secure the necessary quota. Under this plan the poultrymen of Idaho, working through their association, will cooperate with the poultrymen of Utah in marketing the surplus eggs.

A car load of good grade Holsteins was secured from Jermoe and distributed to farmers on the project. The L. M. Savage pure bred herd of Holstein cattle was sold at a public sale. Eighteen head were sold. All but one remained on the project. Prices realized were fairly satisfactory, varying from \$50.00 to \$100.00 for bull calves, \$105 to \$200 for heifer calves and \$150 to \$220 for cows. This sale distributed some cattle of excellent breeding and good individuality among twelve project farmers. Four farmers clubbed together to buy an excellent bull calf which will become a herd sire in that neighborhood.

Weather conditions are favorable to spring work. Considerable plowing is being done. The early flocks of lambs are extra good. Range breeders who have brought their ewes to the project for wintering will begin leaving for the range next week. Grazing conditions in the desert are reported extremely good for so early in the season.

Eggs are fourteen cents a dozen. Butterfat is forty-eight cents at the cheese factory and forty-four cents at the cream stations. Small hens are seven cents per pound, heavy hens twelve cents per pound.

John T. Montgomery

Newlands

During the week ending March 8 the foot and mouth disease situation in California continued to be one of the principal topics of discussion. Infected herds in California are being rapidly destroyed and the premises disinfected. Three new outbreaks, however, have been reported, one of them in a herd of 360 cattle at a distance of twelve miles from the nearest previous outbreak. This new outbreak will no doubt delay the lifting of any quarantine on the part of Nevada. Much pressure is being brought to bear, however, by the chicken hatcheries in parts of California, who have extensive orders placed by Nevada customers, to have the quarantine modified to permit the shipment of baby chicks into Nevada. The hatcheries are not in the infected territory. The Nevada quarantine officials are looking into this proposition now.



Newlands (continued)

Inquiries from prospective settlers are repeatedly coming into this office for answer. To facilitate answering these letters a four page circular letter was prepared. Covering the principal agricultural features of the Newlands Project.

An interesting meeting was held on the ranch of H. J. Long where over two hundred head of registered Holstein-Friesian cattle are maintained. This meeting was held for the purpose of stimulating interest in pure bred bulls. About twenty-five farmers were present, mostly from one district.

During the week there was imported into the project one registered Jersey bull from Oregon, to be used on a small herd of registered Jersey cows. One registered Holstein bull from the local Longheath herd was placed at the head of a local grade herd. Inquiries were received from two other dairymen for registered herd bulls. Inquiry was also received for two more foundation dairy herds for the Fernley district. Assistance was rendered in the selection of a herd of thirty high grade Holsteins from a larger dairy herd now on the project.

L. E. Cline.

North Platte

During the week ending March 8, two dairy short courses were conducted in Goshen county, Wyoming, one at Huntley and the other at Cottier. The courses were put on in cooperation with the County Agent and C. A. Wille, Smith-Hughes teaches at Torrington. Each course is to consist of 12 lectures. Meetings were held in the evenings. During the day visits were made among farmers. The entire week, with the exception of Monday, was devoted to the short course work.

D. H. Propps.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

March 15, 1924.

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Western Irrigation Agriculture

Newlands

For the period January 31 to March 17 Mr. Knight reports as follows:

"The meteorological data recorded at this station for this period follows:

Mean maximum temperature 55.7, maximum 68 on February 14; mean minimum 24.9, minimum 15 on March 16. The rainfall was .05 inch on February 6; .09 inch on February 8; .34 on February 9, .01 on March 2, .15 on March 3, and .02 on March 4, making a total of .66 inches.

The men employed at this station have been busy throughout this period preparing the various plats for seeding. Much time has been devoted by the teamster in releveling the plats on H. It will be some time before this work will be finished. All rotation plats have been harrowed and the levees straightened and cleared of weeds in preparation for planting.

The time of one man has been used in clearing the irrigation ditches and the farm drains. A great deal of brush and weeds had accumulated in these ditches and it was necessary to clear the entire irrigation system before the water could be turned into the ditches.

Some work has been done about the office buildings such as manuring the lawn, and preparing flower beds. The plantings of peppers, egg plants and tomatoes have been made in the greenhouse.

The outline of a soil reclamation experiment was given sometime ago in a report similar to this one. In order that the work being done with this experiment shall be more readily understood, the following outline of the experiment is submitted:

- 1 Check
- 2 Alum - 4 tons to acre
- 3 Sulphur - 1100# to acre
- 4 Check
- 5 Gypsum - 3 tons to acre
- 6 Sulphuric acid - 3600# to acre
- 7 Check
- 8 Alum - 4 tons to acre
- 9 Sulphur - 1100# to acre
- 11 Gypsum - 3 tons to acre
- 12 Sulphuric acid - 3600# to acre
- 13 Check.

Newlands (continued)

All plats have received their treatments with exception of those that are to be treated with sulphuric acid. The acid application will be given at the time of the first irrigation of these plats.

E. W. Knight.

San Antonio

The climatic conditions of the San Antonio region during the four weeks ending March 15 continued to be characterized by temperatures below normal and by frequent drizzling showers. A combination of rain, sleet and snow fell throughout the greater part of February 25 although the total precipitation recorded amounted to only .51 inch. This type of weather has been very detrimental to early plantings of corn, milo and sorgos. A freeze the night of March 14 killed to the ground much of the corn which had emerged at that time. Following is a summary by weeks of the meteorological data as recorded at the Experiment Farm:

week ending:	Temperature - degrees F. :			Freezes :		(1) Precipitation:		Sky		
	Max. :	Min. :	G.D.R. :	Temp.:	Date:	Inches:	Date:	Clear:	Cldy:	P.C1
February 23:	70 :	37 :	24 :	-- :	1.98 :	2/17:	1 :	1 :	5
						.06 :	2/18:			
March 1 :	69 :	30.5 :	30 :	30.5:	2/26:	.51 :	2/24:	4 :	1 :	2
						.51 :	2/25:			
March 8 :	78 :	38. :	39 :	-- :	-- :	.02 :	3/5 :	3 :	2 :	2
						.09 :	3/7 :			
						.02 :	3/8 :			
March 15 :	69 :	29 :	27 :	29 :	3/9 :	.01 :	3/11:	5 :	1 :	1
				30 :	3/15:	.53 :	3/12:			
Totals :						3.73 :	9days:	13 :	5 :	10



San Antonio (continued)

(1) A trace of precipitation was also recorded for February 22, 23, and March 15.

Fields and plats for early spring crops were disked and harrowed and plantings made as follows:

<u>Crop</u>	<u>Experiment</u>	<u>Field</u>	<u>Date</u>
Corn	Rotation	Rotation	March 3 and 4
Corn	Varieties	D3	March 5
Corn	Row Spacing	D3	March 6
Milo	Rotation	Rotation	March 7
Milo	Entomological lab.	D4	March 6
Milo	Do.	C6	March 7
Sorghum	Varieties	C4	March 8
Sorgo	Rotation	Rotation	March 11
Sudan			
Grass	Do.	Do.	March 11

No emergence of any of the plantings had occurred through March 15. Rather an extensive examination of the condition of the seed on that date indicated that with a fair break in the weather a stand of corn will probably be obtained. The probability of securing satisfactory stands on the milo rotation plats and in the sorghum variety test is small.

Plantings have been made in the farm orchards during the winter as shown in the following list.

<u>Kind of fruit</u>	<u>No. of trees</u>	<u>Location</u>
Apples	3	Orchard B3
Pears	7	"
Almonds	23	"
Peaches	18	Orchard A1
Plums	5	"
Plums	16	Orchard B3
Persimmons	2	Orchard A1
Jujubes	10	"
Oranges (Satsuma)	6	Orchard A3
Grapes	4 (vines)	Orchard B3
Grapes	28 (grafts)	Orchard A3
Misc. S.P.I. plants	11	Nursery A1
And miscellaneous nursery plantings of seedlings and cuttings.		

San Antonio (continued)

Field work done in addition to that connected with the plantings consisted of cultivating orchards and vineyards; pruning date palms in orchard E3; taking soil moisture samples on fourteen rotation plats; building new grape trellises for vineyard in orchard E3; and hauling and sawing wood. A considerable amount of labor has been expended in painting, stenciling and setting nursery, orchard and plat stakes. Whenever climatic conditions would permit bird shooters have been kept in the field since March 12 for the purpose of protecting the corn plantings.

Mr. C. J. King, Superintendent of the field station at Sacaton, Arizona visited the experiment farm March 1.

Geo. T. Ratliffe.

Demonstrations on Reclamation Projects.Bella Fourche

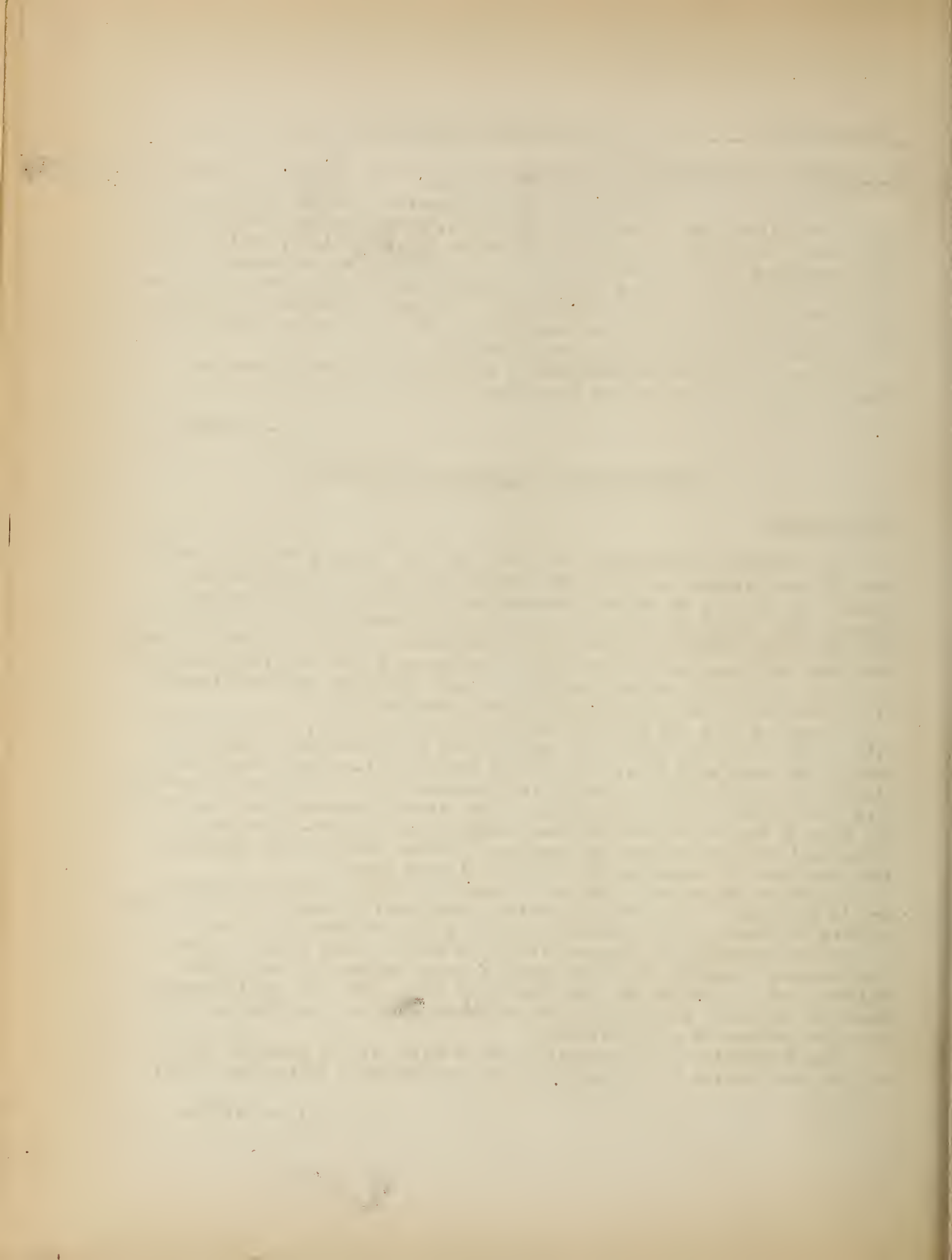
The farmers' short-course, held the last two days of the week ending March 15 was attended by about 250 people. Due to the bad roads many farmers did not get in or were present for only a part of the program. However, the school children were present from three different schools and took an active interest in the judging contest. Twenty-five pens of poultry were exhibited and judged. One club girl showed a pen of white Wyandottes that have won 16 ribbons in less than a year, including the championship ribbon awarded by the Black Hills Poultry Association.

Nearly one day was spent in testing samples of milk, cream and skim milk by the boys and girls. Two very faulty separators were discovered through the skim milk test. The actual loss in dollars and cents were figured per month making an impressive demonstration. The corn improvement work was in charge of Mr. Valentine of the State extension force assisted by Mr. Aune of the experiment farm and county agent Ellison. Corn as a commercial crop was thoroughly discussed and the judging work emphasized the great need of selecting and testing of seed corn.

Interest was added to the short-course by talks on various topics. Mr. J. C. Holmes of the State Marketing Department discussed the marketing of farm products. Mr. Sam Bober of the experiment farm spoke on the feeder pig outlook. Mr. Gayden, president of the Black Hills Poultry Association, discussed the management of young chicks. County agent Ellison, gave a talk on the development of club work. The agriculturist spoke on livestock improvement; Mr. Valentine on corn improvement, and Mr. Aune on corn as a project crop.

One community meeting was attended at Vale with 50 present. One article was written for publication, and 300 circular letters sent out.

F. E. Miller.



Flathead

The entire week ending March 15 was rainy or snowy, and the roads were in such condition that only a few main roads were passable with cars. The moisture is welcome from a crop production standpoint but not from a transportation one.

The first part of the week was utilized in the office, sorting, classifying and indexing the increasing supply of bulletins; calculation of rations for some of the high producing cows of the testing association; numerous office calls for assistance or information on ox-warbles, sick calves, tuberculin testing, and for bulletins. One party was in to discuss the advisability of bringing in some good heifers and cows from Minnesota. Two other men who have just purchased a large ranch near Palsen, next to that of Governor Dixon, were seeking information regarding Guernseys to place on their farm.

The last four days were employed largely with Mr. Chris Johnson of the Western Dairy Office at meetings and in consultation and visits to creamery and cream station. Mr. Johnson presented a talk on the marketing of cream and the need of good cream properly cared for and delivered to creameries to get good butter, and as a result, better prices. His talks were very interesting and the people who managed to get over the roads to the meeting were well pleased and had many questions for Mr. Johnson. Mrs. Miller, wife of the agriculturist, demonstrated the pressure cooker for the ladies of Charlo, at the meeting Saturday. This feature was much appreciated by the women, and further invitation for Mrs. Miller to meet with them has been extended.

Butterfat is selling for 44 cents and 46 cents. Eggs at 17½ cents.

L. B. Miller.

Newlands

The situation relative to the importation of baby chicks into this valley was relieved on Thursday of the week ending March 15. The foot and mouth disease quarantine was modified in Nevada to permit the importation of baby chicks from the non-infected districts of California. Applications for permit, however, must be made before importations are permitted. This will be in effect until the infection spreads to other countries from which the importations are coming. This modification of the quarantine has greatly relieved local poultrymen, who had planned importations of baby chicks.

Some time is being devoted to assisting a Federal veterinarian, stationed on the project, in making inspections of all dairies, which had been shipping cream to California points prior to the Nevada quarantine.



Newlands (continued)

On Monday Mr. Murdock of the Western Dairy Division visited the office in the interest of dairy herd testing work. Some time was spent with Mr. Murdock in going over the work of the local herd testing association and in visiting over the project.

The herd tester, who has been doing the work for the testing association left the testing work, to take charge of one of the large dairy herds on the project, so it became necessary to secure another tester. On Friday a trip was made to Reno to engage a new tester, who will take up the work the first of the week. The testing work is well organized and there should be no interference with the work on account of the change of men.

During the week a two and one half page circular letter was issued to all the turkey growers on the project. This letter was issued for the purpose of putting into the hands of this season's turkey growers, information regarding the prevention and treatment of black head in turkeys, special emphasis being laid on ridding the brood stock of intestinal worms and black head infection and cleaning up the premises before the young stock comes on. It is hoped we will be able to successfully combat black head this year with the knowledge at hand. We are expecting the largest turkey crop this year in the history of the project.

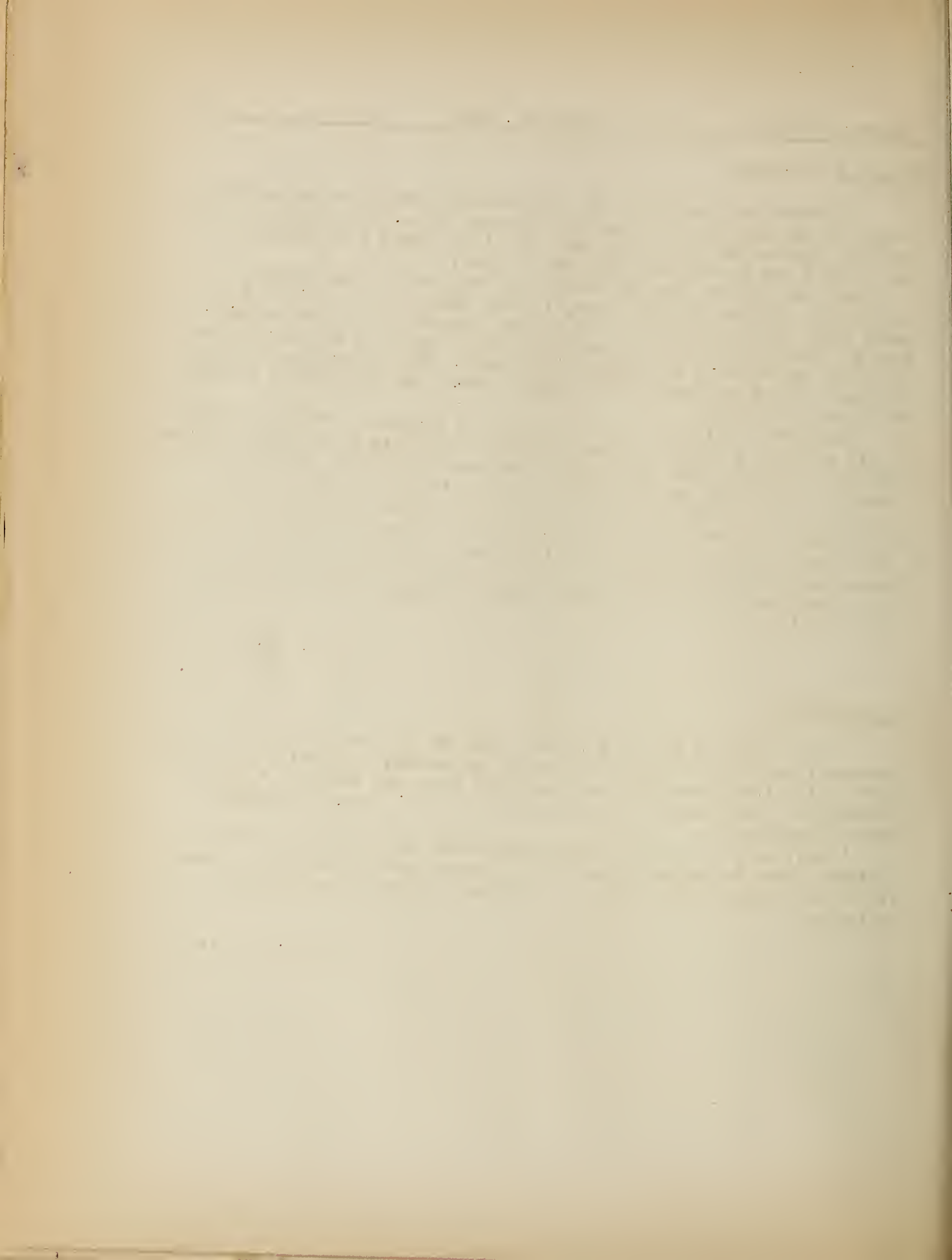
L. E. Cline.

North Platte

A large part of the week ending March 15 was devoted to a continuation of the dairy short courses at Huntley and Cortier, Wyoming. Much of the time during the day was spent among the farmers of these vicinities. One farmer was accompanied to Lingle where he purchased three Holstein cows.

Conferences were held with county agents and with a few of the bankers of the Valley in regard to a dairy project in which the bankers are to cooperate. Plans will be completed and the project started by April 1.

D. H. Propps.



Uncompahgre

Poultry work has occupied the main part of the week ending March 8. Two meetings were held to discuss a poultry marketing plan, at each of which a committee was elected to take up the organization of a cooperative association. Six localities in Montrose and Delta counties now have organization committees at work on the plan which contemplates six local associations to collect and grade eggs and poultry, all under one manager who will look after the selling of these products. These associations will be affiliated as one organization with a State Poultry Exchange which is already in operation with headquarters at Denver.

Three flocks of poultry have been culled; two breeding pens selected and two farm visits made with reference to hatching, etc. Two club members were visited.

The State Dairy Specialist visited the project and spent one day here. Two meetings had been arranged for communities in Delta County with him, at which breeding, feeding and pastures were discussed. The State Specialist in Farm Management also spoke at two meetings previously arranged. At both of these the necessity of planning for the family's living from the farm was emphasized.

Stormy weather has prevailed all this week, one of the worst storms of the winter occurring on Saturday with snow, low temperature and high wind. No particular damage was done.

A bull association or club that has been in prospect for several months was organized during the week ending March 15 in the California Mesa District and a trip was made with a representative of the club to Grand Junction to select a Jersey bull. It was learned at Grand Junction that an unusual demand for bulls had practically cleaned up the surplus, only two bulls of serviceable age being found for sale. However, an old bull of exceptional size and quality with a number of excellent heifers in production was found which the owner wished to put out on lease for a year or two, and he was secured for the club which will pay \$1.00 per cow per year. A Holstein bull was selected for a dairy man near Montrose, which required parts of two days. A gratifying increase of interest in purebred bulls is noted but just at this time there are not many such bulls being offered for sale. Prices asked are generally higher than a few months ago. One bull, sold at public auction recently for \$36.00 is now priced at \$350. Loesch Bros., the only breeders of purebred dairy stock in Montrose county report that the demand for bulls is better than for the past two years. They have sold all their surplus except some young calves and one older bull held at \$500.00.

Four calls were made with reference to poultry feeding, hatching and culling, one flock being culled. One pig club meeting was attended and one hog breeder was interviewed regarding pigs for club work.

H. A. Ireland.

WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

March 22, 1924.

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Demonstrations on Reclamation Projects

Belle Fourche

During the week ending March 22, reports of losses of lambs from slinking reached this office. Upon investigation it was found that in all cases of slinking mouldy hay had been fed for some time. A change to bright clean hay immediately stopped the slinking. Farmers have been warned to fork over the hay carefully and to throw out badly discolored and damp hay.

Two flocks of farm poultry were culled, the best birds put in separate runs as breeding pens. Milk tests were run for five farmers and a milk testing demonstration conducted before the agricultural class of the Newell school. Heavy roads limited farm calls, only the most urgent requests for assistance being answered by a visit. One article was written for publication.

Frank E. Miller.

Flathead

Considerable time was spent with the cow tester the first part of the week ending March 22, discussing the work and getting out reports and news articles. There were only 195 cows tested the first month although there were 325 signed up. This was due to so many being in the rest period. The average production per cow was 30.8 pounds of fat for February.

Two gentlemen from the Indian Bureau and Mr. Moody spent some time in this office the fore part of the week in general discussion of conditions here. These gentlemen were also present at the Lake County Bankers' Association meeting on Wednesday evening in Roman and explained the general policy of the Bureau and how the transfer from the Reclamation Service would effect the work on the Flathead project.

The Bankers' Association meeting was principally a "sheep" meeting as this was the main topic of the evening. Much information on this subject was given by several speakers.

One day was used in assisting the veterinarian in tuberculin retest work. Several office, phone and farm calls were made alone and with the veterinarian on Mammite cases.

Butterfat remains at 44¢ and 46¢. Eggs are 18¢ and 20¢ per dozen.

L. B. Miller.

Minidoka

The principal part of the week ending March 15 was spent in making farm visits at the request of the farmers and attempts to work out the looking toward the organization of a cow testing association.

THE UNIVERSITY OF CHICAGO

THE DIVISION OF THE PHYSICAL SCIENCES

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Minidoka (continued)

A suspected case of hog cholera proved to be merely an attack of indigestion.

The most interesting event of the week was the visit of Mr. Bulkley and Mr. Meyers. They looked over some project herds of Holstein cattle and offered their assistance in securing bulls suitable for further breeding work.

During the week ending March 22 the subject under discussion at the Twin Falls conference was the matter of shortage of water for this year. Livestock interests are all keenly alive to the effect of shortage of water on forage crops for the season. The recommendation of the conference which is formulated this week will be to sit tight and not rock the boat. It is believed that the careful use of available water, preplanting irrigation where waste water can be used and the proper selection of crops will assist very materially in putting over a successful cropping season.

There is a tendency just now in some parts of the state to sell breeding animals, which this conference goes on record as discouraging.

J. T. Montgomery

Newlands

It was necessary to devote considerable time throughout the week ending March 22 to dairy herd testing work. The tester, who has had this work in charge took another position and it has been necessary to break in a new man. There has also been considerable demand for assistance along the line of general herd management, which has necessitated some visits to farms.

The subject of mixed grass pastures is attracting considerable interest this spring. This subject has been given considerable publicity in the local papers and at several farm bureau center meetings with very gratifying results. One article was prepared on the subject of the importance of green feed for producing cows. Irrigated pastures have a heavy carrying capacity here and will yield as much feed per acre as will alfalfa, and besides the beneficial results of green feed, pastures have the additional advantage of reducing the labor cost.

The latest information from California regarding the foot and mouth disease is that the outbreak has for the first time jumped from the original area where it has been confined up to date, one hundred and fifty miles to Merced, California. A herd of five hundred head of range cattle, recently congregated for shipment to better range, were found affected with the foot and mouth disease. These, together with eighty head of hogs, will be destroyed at once. This new outbreak will no doubt have the effect of causing the California authorities to lose faith in their idea that they had the disease under control and quarantine regulations will be again tightened, where there was a tendency to relax. The livestock commission of this state is insisting that a rigid quarantine be maintained in spite of the great demand of California stockmen to ship starving cattle onto the Nevada range for feeding purposes.

L. E. Cline.

North Platte

A very bad blizzard continued during the week ending March 22. Wind from the southeast accompanied by snow made it very disagreeable for live-stock. Young pigs were especially affected since there was very little sunshine and the weather was too severe to get them out for exercise.

With the exception of one day north and south roads were all but impassible. It so happened that on that day (Tuesday) a sheep tour among Scottsbluff county farmers had been planned in cooperation with county agent Sheldon. The principal object of the tour was to demonstrate methods of feeding and handling ewes, especially "gunners" shipped in from the range country in the fall. These ewes are lambed here and both ewes and lambs are marketed in the spring or early summer. Although this was the first tour of the kind in the country, interest was very good indeed, and the undertaking was quite worth while. About 50 farmers and feeders participated. Stops were made at 10 different places and at the experiment farm.

D. H. Propps.

Uncompahgre

During the week ending March 22 two calls were made with reference to a "ton-litter" contest among hog breeders. There has not been a great deal of interest in this contest which has been popular in other parts of the state, but a few local breeders have been found who wish to enter if their sows farrow suitable litters. A few other breeders will be seen with reference to the contest. One hog raiser has had considerable trouble the past two seasons from his sows eating their pigs. This spring three sows have eaten their litters, some of the pigs being 48 hours or more old. The sows have had alfalfa, shelled corn, and tankage in small amounts from a week before farrowing. They are in apparently good condition but are kept in rather unsanitary pens. A mineral mixture has been suggested for use in the herd and the owner has been advised to have his tenant clean pens and troughs and feed liberally of tankage. He is feeding a carload of hogs but is holding them back for more favorable markets. Another hog raiser visited this week has had very poor results with his spring farrow, partly on account of unfavorable weather. He also has a carload of feeders but hopes to ship them as feeders instead of finishing them.

A local sheep breeder was visited. His ewes are lambing about 200% and up to date he has saved 49 lambs from 29 ewes. A number of ewes have been sold from this flock to sheep-club members. In 1923 the flock showed a net return about feed cost of \$559.50 including increase in invoice, on an average number of 54 head of breeding stock.

Milk tests were made on ten herds this month. Stormy weather has caused a decrease in production in nearly all herds.

Poultry marketing organization has taken some time again this week, two local meetings being attended. The plan is growing in favor and promises to go over without any great effort.

Five articles were written for the press.

H. A. Ireland.

W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

March 29, 1924.

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Western Irrigation Agriculture

Newlands

For the period March 17 to 31, Mr. Knight reports as follows:

"The meteorological data recorded at this station for the period follows:

Mean maximum 50.9; maximum 60 on the 19th and 20th; mean minimum 26.1, minimum 17 on the 22nd. The rainfall was .07 of an inch on the 20th, .03 on the 21st, .01 on the 22nd, .05 on the 23rd; .02 on the 27th, and a trace on the 28th; making a total of .18 inch.

The general farm work has been continued throughout this period. The teamster has spent most of his time leveling on Field H. Considerable work has been done on irrigation and drainage ditches and there still remains quite a little to do before they will be ready for the irrigation period.

Some planting has been done. Rotation plats D1, D5, E1, E2, E7, E8, F6 and F11 have been seeded to wheat. Such truck crops as peas, carrots, turnips, onion, radish, lettuce, beets and parsnips have been planted in the garden.

This year a cooperative experiment will be conducted on the local high school grounds. About five acres of the grounds will be seeded to various pasture grasses, silage corn and forage crops. These various crops will be planted with the idea in mind of conducting them as demonstration plats. Much interest is being shown by the local farmers in pasture grass mixtures and forage crops for dairy cows. It is believed by having a demonstration of this sort, located in such a place, that much good can be derived by dairymen in studying the characteristics of the various grasses and forage crops grown under local conditions.

The members of the agricultural classes in the local schools will have the benefit of the data collected in this experiment. Also they will obtain some practical knowledge of the culture of such crops in doing some of the work connected with their growth.

E. W. Knight.

San Antonio

For the two weeks ending March 29 Mr. Ratliffe reports as follows:

"The first week of the period covered by this report was characterized by subnormal temperatures, cloudy weather, and drizzling showers. The second week of the period, while not free from cloudiness and morning fogs, was quite warm with a maximum temperature of 87 recorded for two days. The maximum temperature recorded for the period was 87, minimum 36,

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San Antonio(continued)

and greatest daily range 39. There was a total precipitation of 0.28 inch, scattered through 6 days.

"Corn planted in the 21 rotation plats March 3 finally emerged from March 19 to 23. Emergence at the earlier date was on the better drained plats while the lower lying plats were the last to show emergence. In spite of the long time required to germinate, due to excessively wet, cold soil, the stands secured are good to excellent on nearly all plats. Long skips occur in some rows due to the work of ground squirrels and also to some agency as yet not definitely determined. Portions of rows, varying in length from a few feet up to three or four rods, where not a plant has emerged are to be found. Examination shows a good distribution of seed placed in ideal location as to depth and moisture, but with the germ entirely eaten out; apparently by some worm. This condition is reported to exist in a large portion of the corn south and east from San Antonio; in some cases as much as 20 per cent of the fields being thus damaged.

"Milo in the rotation fields, and sorghum varieties planted in field C4 failed to germinate, due to cold and wet weather. An exception to this statement is Manchu Brown Kaoliang (C.I. 171) which came through with a perfect stand. All milo plats and varieties were disked out and the land harrowed. Replanting was done under very satisfactory soil conditions March 25 and 27, respectively. Sudan grass and Sumac sorghum plats in the rotations, planted March 11, have emerged to satisfactory stands.

"In addition to the operations incident to replanting the fields indicated above, the work of the station has included disking and harrowing cotton land preparatory to planting, disking and spring-toothing the orchards, taking soil samples, pruning ornamentals and mowing grass on the farm lawns, and miscellaneous wet-weather jobs.

Geo. T. Ratliffe.

Demonstrations on Reclamation Projects.Belle Fourche

During the week ending March 29, a short trip was made by the agriculturist to Huron to attend the South Dakota Cooperative Sheep and Wool Growers Association meeting. Mr. C. D. Sanders of Newell was elected director to represent this district. The marketing of products is the big farm problem in South Dakota. This past year with a decided break in the wool market during the fall and winter, the wool pool saved the situation for the wool growers by their orderly marketing methods. The new marketing agreement put out by the association calls for a three years' binding contract.

An interesting sugar beet meeting was held at Newell on Saturday at which time the sugar beet question for the project was brought up to date. Mr. J. F. Steck, who is the local field man for the Great Western Sugar Company stated that between 4,000 and 5,000 acres of beets are to be planted this spring. With a most liberal contract giving this project factory price (f.o.b.) here and the possibility of the railroad company building two spurs into Vale and Arpan districts, the general sentiment favors planting rational acreages every year. Mr. Aune of the experiment farm gave station data

Belle Fourche (continued)

concerning the rotations and management of beets. The farm records show that on the heavy Pierre clay beets should follow a cultivated crop and the ground be fall plowed. With these points brought out plainly and seconded by Mr. Ginn, manager of the Scottsbluff factory, the acreage around Newell will be small this year but plans will be made to get the land in shape for normal plantings the following year.

Another cream station started doing business at Newell, making five now in operation at Newell alone. It is believed that five stations are about three too many. If the dairymen would support one station a better price for the butterfat would result.

Eleven cars of project-fed lambs left Newell for the Omaha market on Friday.

Frank E. Miller.

Flathead

Two days of the week ending March 29 were employed in club work with the Assistant State club leader and alone, with the purpose of getting a few calf clubs started. One in the Moiese seems probable.

Nearly two days were also used in work on the tuberculin testing.

Three samples of milk were tested, and two cases of mastitis treated.

One day was devoted chiefly to vaccinating for blackleg. Four farms were visited and 25 calves vaccinated.

Two calls were made on ranchers at Ravalli and their membership in the Cow Testing Association secured.

L. B. Miller.

Newlands

Herd testing work required considerable time and attention during the week ending March 29. It has been necessary to break in a second new tester this week and in order to keep things running smoothly and not lose any time, many of the details of the work must be looked after by this office, together with some of the testing.

On Monday the tester, who was recently employed, was on his way from Reno to Fallon by auto to begin his second week's work. His car ran off a grade and turned over badly crippling him, so that he will be incapacitated for work for some time. Under the circumstances it was thought best to secure another man for the place. The place is being filled temporarily, while a number of prospects are being looked up.

On Tuesday a trip was made to the Fernley district with one of the Fallon dairymen for the purpose of arranging temporarily for feed for forty head of dairy cows, until the first crop is harvested this year. Several parties were visited and prices secured on their hay. Practically all the hay in the Fallon district has been disposed of and dairymen finding themselves short are obliged to secure feed in the Fernley District. While in Fernley two parties were visited, who are in the market for foundation herds, and an effort will be made to secure cattle for these parties.

Newlands (continued)

In connection with the constant propaganda for better herd sires on the project, an article was prepared for one of the local papers on this topic.

While this office has never put on a grand-stand campaign for better sires, a constant educational campaign has been carried on with very excellent results. The few grade bulls that have been in use on the project are being replaced with young registered bulls. Practically every cooperative shipment of butcher stuff, shipped from the project contains two or more grade bulls.

L. E. Cline.

Minidoka

Week ending March 29.

Mr. W. E. Meyer of the Holstein Friesian Association was present at the Holstein Friesian Club meeting at Burley, Monday evening and gave an interesting talk on Holstein prospects. Matters of Cow Testing Association and bull buying were discussed by the members present. The club instructed the agriculturist to secure photographs, prices and information concerning bulls suitable for use on project herds and report the same at the next meeting of the Association April 7th.

A great deal of the agriculturist's time has been occupied on matters of the ton litter contest and local calls to dairy farms to consider matters of feeding and breeding of cattle.

J. T. Montgomery.

North Platte.

Much of the week ending March 29 was devoted to dairy record and poultry record projects which will be started soon. The banks of the Valley are cooperating in the Dairy Project.

A herd of hogs was immunized and a demonstration given in the vicinity of Melbeta where cholera was so bad last summer. No cholera has been reported on the project for several months but most breeders and a number of farmers are immunizing their pigs.

The Experiment Farm was favored with a visit from W. H. McNies, poultry specialist, University of Wyoming, County Agent Dupertuis of Goshen county drove with him from Torrington. Some time was spent looking over the livestock and the new poultry plant at the farm.

D. H. Propps.

WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE.

And

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XXIV

April 5, 1924.

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Western Irrigation Agriculture

Newlands

The meteorological data recorded at the Newland Experiment Station for the period March 31 to April 7 follows:

Mean maximum 62.1; maximum 73 on April 6; mean minimum 29.7; minimum 20 on April 5. No rainfall.

The general spring work has been continued. The time of one man is spent entirely in working on the irrigation and drainage ditches on the farm. The teamster is still leveling on H. It is quite likely that part of this field will have to remain unfinished until the fall. It will not be long before the amount of spring seeding and later cultivating will require the entire time of the teamster.

Some work has been done in the nursery. Several thousand cuttings of poplars and other shade trees have been planted. The demand for trees of this kind is increasing every year. Seemingly the people of the town and surrounding country are commencing to realize the value of shade trees as a means of adding attractiveness to their property.

E. W. Knight.

Yuma

The maximum temperature for the two-week period ending April 5 was 88; minimum 34; greatest daily range 40.5; precipitation .27. The last killing frost of the season was recorded on March 22; precipitation to the amount of .02 on March 17; .25 on March 18 and .005 on April 5-6 was recorded.

The month of March was cool and windy. Cotton planting begun in some sections of the valley but most growers are holding off until warmer weather.

The first cutting of alfalfa was harvested on the project and sold for a good price on coast markets. Prices still hold around \$25.00 per ton baled, f.o.b., Yuma, Ariz.

Station work performed during the past two weeks consisted of planting cotton on the irrigated rotations, harvesting first cutting of alfalfa hay, harvesting barley, grading roads, pruning dates, general irrigating and cultivating.

E. G. Noble.

Demonstrations on Reclamation Projects.Belle Fourche

Heavy roads still continue on the project but 26 miles being covered by automobile during the week ending April 5.

Shipments of livestock, hay and grain for the first three months of the year are as follows:

Beef cattle	11	carloads
Sheep	67	"
Hogs	36	"
Wheat	6	"
Corn	1	"
Hay	57	"
Alfalfa Meal	5	"

Six carloads of corn have been shipped in during the first three months.

Two articles were written for publication on Farm Gardens and Livestock Suggestions. The monthly newsletter of 600 copies was prepared. One club member was added to the Ayrshire Dairy-Calf Club and two members to the Sheep Club.

F. E. Miller.

Flathead

For the week ending April 5 the weather was fine and permitted considerable spring work. Fields and pastures are looking green already.

Two meetings were conducted and attended during the week. One was a meeting of the Cow Testing Association directors following the first month of operation to take stock of the progress and needs of the association. The other meeting was the first regular meeting of the Lake County Association (central organization of all organizations in the county) which proved peppy and promising of doing real work.

Records and financial status of Cow Testing Association were checked with the Secretary and notices of dues prepared and mailed. Two milk scales were also delivered for use by associated members.

The tuberculin work received attention mapping new territory soon to be tested and in going over details with the veterinarian.

Weekly and monthly reports along with checking expenses and accounts of the tuberculin work in the county took considerable time during the week.

Office calls numbered 35. Two press articles were prepared.

Cream took a 2 cent drop the last of the week to 29¢ and 41¢. Egg price remained at 17½¢.

L. B. Miller.

Minidoka

The agriculturist spent two days of the week ending April 5 in conference with the county agents of Southern Idaho in Pocatello in an endeavor to investigate the Egg Marketing Association and find its present

Minidoka (continued)

status. It was found that there is still some lack of a sufficient number of hens signed up to make the Association function at this time but the farmers expect to secure enough to open a branch candling station at Pocatello in the near future.

The matter of cream pools as furnishing an outlet for cream at a more advantageous figure than we are now getting was thoroughly gone into and reports from cream pools operating in other parts of the state and cooperative creameries, whose managers were present and explained their business, seemed to offer a possibility of ten cents above project markets for the last year. Farmers who do not patronize cheese factories are becoming interested in a better market for their cream and this matter of pooling the cream seems to offer advantages.

Idaho grows some remarkably fine seed and farmers are interested in disposal of the surplus and holding the very best for home needs. They will endeavor to keep the State Seed Association, which has rendered good service, functioning this year.

J. T. Montgomery.

North Platte

During the week ending April 5 cholera appeared in a herd east of Mitchell and several pigs died. This is the first cholera that has been reported for several months. The sick herd and one other were immunized during the week. The State Serum Plant at Lincoln is furnishing serum this spring at 70¢ and virus at \$1.00 per hundred C. C's.

Annual Lamb Feeders' Day was held at the Experiment Farm Thursday of this week. The 13 lots of experimental lambs were on display and the results of this year's feeding tests were discussed. Some attention was also given to the dairy, hogs and the new poultry plant. In the afternoon a short program was given in which lamb feeding and other livestock topics were discussed.

About 200 farmers and feeders were present coming from as far west as Fort Laramie and as far east as Brideport.

D. H. Propps.

W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

April 12, 1924.

15

Western Irrigation Agriculture

Huntley

Mr. Hansen reports for the week ending April 12 as follows:

Maximum temperature 72, minimum temperature 21, and precipitation .14 inch.

Precipitation during March and the first part of April amounted to 2.40 inches. Field work has been possible only on the lighter soils of the valley and no work in the fields has as yet been done at the Experiment Station.

Project farmers have entered contracts to grow more than 6,000 acres of beets. This is nearly one-third of the total cultivated area of the project. A corresponding increase in beet acreage has occurred in other parts of the Billings district and the total will probably amount to nearly 30,000 acres.

Original and bonus payments for the 1923 beet crop amounted to \$8.00 per ton with prospects of an additional payment of \$2.00 per ton for that crop.

It is probable that there will be a substantial increase this season in the acreage of corn and beans in the Yellowstone Valley.

Director F. B. Linfield of the Montana Experiment Station was a station visitor during the week.

Dan Hansen.

Newlands

The meteorological data recorded at this station for the period April 7 to April 14 follows:

Mean maximum 76.1; maximum 78 on the 13th; mean minimum 34.8, minimum 30 on the 9th. The rainfall was .00 inches.

The leveling of the H series has been continued throughout this period. It will not be long now before some of this will be ready for seeding.

Work has commenced on the demonstration plats on the High School grounds. The entire plot of ground has been plowed and at present is being leveled and divided into plats for seeding. It is hoped to get the grasses planted here before the spring gets too far advanced.

One irrigation has been given at the station. The plats irrigated were Y13, 14, 15, 16, 17; G1, 2, 3, 4, 5, and E1, 2, 5, 6, 7 and 8. It will be recalled that Y13 is being used in a reclamation experiment. All the plats on Y13 that were to receive treatments have been treated. The last were the two plats that were to receive sulfuric acid. This was applied in the irrigation water on those plats during the recent irrigation.

F. B. Headley.

Yuma

The maximum temperature for the week ending April 12 was 87; minimum 44.5; greatest daily range 37.5. The precipitation for the week was .095, there being .05 recorded during the night of April 5-6, and .045 on April 8th.

Although a few windy days were recorded the temperature has been very favorable for germinating cotton seed. Cotton planting continues on the project with approximately three-fourths of the plantings already made. The outbreak of the foot and mouth disease in other parts of California is causing much concern locally. For some time the shipments of products from the farms on the California side of the project were refused entrance into Yuma. A system of permits was finally arranged whereby vegetables, cream and eggs could be taken to Yuma. In the Yuma Valley there are several herds of beef cattle which are being held up on account of the quarantine in the Los Angeles stock-yards. Automobile traffic through the project from California has been stopped.

Station work performed during the week consisted of threshing barley, harvesting the first cutting of alfalfa hay on the fertilizer plats, cleaning of main laterals in the irrigation system, pollinating dates, general irrigating and cultivating. Table No. 1 attached gives the results obtained from the alfalfa fertilizer tests.

Table showing results obtained from the alfalfa fertilizer tests.

Plat No.	Treatment	Yield	Increase	Increase
		:per plat:	:Increase:	:Increase:
C-19-A	:250 ^{lb} per A. 16% Acid Phosphate : spring 1923.	:Lbs. : :435	: Lbs. : :	:Tons per A :
-B	: Check	: 85	: 350	: .70
C-20-A	:250 ^{lb} per A. 16% Acid phosphate :spring 1923, 250 ^{lb} additional in :fall 1923	: : 660	: :	: :
-B	: Check	: 105	: 555	: 1.11
C-21-A	:500 ^{lb} per A. 16% Acid phosphate	: 390	:	:
-B	: Check	: 95	: 295	: .59
C-22-A	:182 ^{lb} per A. 44% Acid phosphate	: 625	:	:
-B	: Check	: 165	: 460	: .92
C-23-A	:750 ^{lb} per A. 16% Acid phosphate	: 800	:	:
-B	: Check	: 140	: 660	: 1.32
C-24-A	:250 ^{lb} of 16% Acid phosphate and 12 : T manure per A.	: : 920	: :	: :
-B	: Check	: 320	: 600	: 1.20
C-25-A	:12 T. manure per A.	: 715	:	:
-B	: Check	: 490	: 225	: .45
C-26-A	:200 ^{lb} per A. Texas Guelph Sulphur	: 215	:	:
-B	: Check	: 210	: 5	: .01
C-27-A	:200 ^{lb} per A. "Toro" Sulphur	: 80	:	:
-B	: Check	: 70	: 10	: .02
C-28-A	:200 ^{lb} "Toro" sulphur and 250 ^{lb} Acid phosphate per A.	: : 220	: :	: :
-B	: Check	: 90	: 130	: .26

E. G. Noble.

Demonstrations on Reclamation Projects.Belle Fourche

During the week ending April 12, the most disastrous flood ever known occurred at Belle Fourche causing damages amounting to well over \$100,000. Train service to the project was stopped two days. All bridges or approaches are still out preventing travel over the Belle Fourche river.

Two livestock club meetings were held during the week and one community meeting was attended Saturday afternoon. One article was written for publication on livestock shipping. Pooling of wool clips and livestock shipping cooperative associations took up a number of days. Seed corn has been ordered for a number of farmers and serum and virus for cholera vaccination for two farmers. No loss from cholera has been reported this spring.

Frank E. Miller.

Flathead

For the week ending April 12 the weather was fine and roads were good.

It was somewhat rainy toward the end of the week. Wheat was four inches high in some fields.

Nearly three days were used in the tuberculin work, mapping territory, notifying ranchers of time the doctor would be there to inject, correspondence, etc.

The major portion of two days were devoted to Cow Testing Association work, endeavoring to interest ranchers in the work, calling on farmers and explaining its operation. Two prospects were located.

The remaining time was largely spent in office attending to correspondence and office calls. Milk was tested for two cow owners, one 2 samples and the other 7 samples. The latter was induced to weigh his milk for one week and keep a record of each cow.

Butterfat dropped to 33¢ and 35¢.

L. B. Miller.

Newlands

Some time during the week ending March 29 was devoted to preparing an article for one of the state papers circulating very largely in Western Nevada on the subject of "The Adaptability of Dairying to Western Nevada." This first article will be followed by others with the idea of stimulating interest in dairying throughout the western irrigated valleys of Nevada of which this project is one. More dairying in the nearby communities will be advantageous to the dairymen in this valley in the way of marketing dairy products and surplus dairy cattle.

Further outbreaks of foot and mouth disease in California have caused the Governor of this state to issue a proclamation which places a quarantine against practically all farm crops, used implements and livestock coming from the state of California into Nevada except by special permit. This quarantine also covers the movement of people from California, who are in any way associated with farm life. The quarantine provides for the disinfection of such persons upon entering the state. This office has devoted considerable time making plans and helping to carry out the disinfection of farm laborers coming into the project.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

1925

The following report was prepared by the members of the Department of Chemistry during the year 1925. It contains a summary of the work done in the various laboratories, and a list of the publications of the department. The work was carried out under the direction of the Department Chairman, and the results are presented in the form of a report to the University.

REPORT OF THE

DEPARTMENT OF CHEMISTRY

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1925

CHICAGO

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Newlands (continued)

On Wednesday evening a community center farm meeting was attended and a talk given on herd testing work. It was interesting to note that practically all the people present had had some experience with herd testing work, and that a large majority of the adults present were members of the present association.

L. E. Cline.

North Platte

The week ending April 12 was devoted largely to dairy work. A bull club was organized and a bull placed ⁱⁿ Sioux County. The bull in the Sheep Creek club was exchanged for another one that had been in service at the Experiment Farm.

The county agent in Goshen county, Wyoming, drove down with one of his farmers who wanted a young bull. A calf was selected for him from the Barton herd at Gering.

Some time was spent on the dairy farm record project and a feeding bulletin prepared to use in connection with the project.

Several requests have been made for some purebred Holstein cows and heifers that are to be sold at a dispersion sale at Lincoln on the 22nd. In case the demand is sufficient to make a car load the sale will be attended and selections made.

D. H. Propps.

Uncomahare

Poultry marketing organization work occupied the greater part of the week ending March 29. Three local meetings were attended to explain the plan of the organization and arrangements were made for meetings next week. The plan is meeting with no apparent opposition although no great enthusiasm is being evidenced. Local committees are in charge in the various districts.

One and one half days were spent on pig club work, visiting members and breeders that may have pigs to sell. There will not be a large number of enrollments but it is going to be a little difficult to find enough gilts to supply them on account of losses, due principally to cold, stormy weather. The Clements herd of Durocs at Paonia from which the best pigs available have been secured, can furnish not more than four gilts this year, and Poland China breeders are in about the same position.

A local sheep man was interviewed this week in regard to a "ewe culling" project similar to one being conducted in Oregon. The plan is to weigh the fleece of each ewe, culling all ewes producing less than a prescribed weight of wool and failing to measure up to other requirements. The owner is in favor of attempting something of the kind, having just acquired a band of 1,500 ewes, half of them by purchase and the other half on lease, he to select the ewes purchased. However, he does not know yet what shearing arrangements he will be able to make, so is not sure that the plan of culling

Uncompahgre (continued)

by fleece weight will be practicable. This owner is also in favor of a wool pool, and while most of the larger growers here are not favorable to a pool an effort may be made to get those that are, together to discuss it.

Three men were interviewed relative to the ton litter contest, two of whom hope to enter.

Two more Jersey bulls were received from Grand Junction during the week ending April 4, one of them being the bull secured for the bull club near Delta. These two make a total of eight bulls brought in from Grand Junction on the free lease plan. A Holstein bull that had been sold to a shipper was recommended to a dairyman whose herd sire had reacted to the tuberculin test and was purchased.

Poultry work has occupied considerable time. A circular on black-head prevention and treatment was mailed to all turkey raisers. A poultry club was visited and a culling demonstration given to the members; two meetings to discuss marketing were attended and also a meeting of the directors of the poultry association.

A circular on pastures giving seed mixture recommended, time and method of seeding, etc, was mailed to men who had reported that they expected to seed pasture this year. Three men called at the office to inquire regarding pasture seeding.

Several short articles were written for publication on poultry, better sires, sheep, etc.

H. A. Ireland.

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W E E K L Y R E P O R T S
Of the Offices of
WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

April 19, 1924.

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Western Irrigation Agriculture

Newlands

The meteorological data recorded at this station for the period April 14 to April 21 follows:

Mean maximum 65; maximum 77 on the 19th; mean minimum 30; minimum 16 on the 16th; the rainfall was a trace on the 15th.

The work of leveling F continues. At present the levees are being made and the head ditch constructed.

This week should see the grass plats on the school grounds seeded to various grasses obtained for this purpose. Judging from the amount of interest shown by the local people in regard to this undertaking, a great deal of good should be derived from these demonstration plats.

Plats D8, E5 and E6 at the station have been sown to beets.

One irrigation was given during this period to all the plats on C and plat 8 on D.

E. W. Knight.

San Antonio

Temperatures for the two weeks ending April 12 ranged from a minimum of 36 on March 31 to a maximum of 89 on April 10. The greatest daily range of 37 occurred March 30. A total precipitation of .62 inch fell during three days. Six days were recorded as clear, six as cloudy, and two as partly cloudy.

Station work during this period included the cultivation of all corn plantings; cultivation and hoeing of all orchards; disking, spring tothing, and spike-tooth-harrowing of unplanted fields for the control of weeds and Johnson grass; and whitewashing the greenhouse.

Mr. C. S. Scofield spent April 11 and 12 on the station. Mr. Andrus T. Valentine, of the office of Crop Acclimatization, arrived April 1 to assume charge of the cotton work of that office for the season. Mr. R. D. Martin of the same office arrived April 5 to plant their cotton experiments. Mr. H. Gregory McKeever of the Crop Acclimatization office visited the station April 10, enroute to California.

Geo. T. Ratliffe.

Demonstrations on Reclamation ProjectsBelle Fourche

During the week ending April 19, the Newell Commercial Club at a meeting changed to a community club. It is believed that through the cooperation of the merchants and farmers, some of the perplexing problems of the project will be better understood. In the future meetings are planned to be held every month.

Two days of the week were spent with J. C. Holmes of the State Marketing Department on cooperative livestock shipping work and the pooling of wool through the state-wide organization.

One new member was added to the pig club and gilts placed for two members. Two registered Ayrshire heifers were placed for two members of the Dairy Calf Club. The members of the Project Pig Club held their second meeting Saturday morning.

A. C. Cooley arrived on the project Saturday afternoon.

Frank E. Miller.

Flathead

During the week ending April 19 several days were spent on work with the Cow Testing Association, checking the month's work and totaling sheets etc, with the cow tester. Several trips were also made to different parts of the valley visiting prospects for membership in the Association. Two more members were added during the week and the third promised for the near future.

The tuberculin work required considerable time as several retests had to be arranged and assistance from the Indian department secured for the veterinarian in testing among some of the Indians around Flathead Lake. Dr. Shoemaker, Acting Inspector in Charge of Tuberculin work in the state, was also on the project the first part of the week, and spent considerable time with this office.

Office calls were numerous during the week and included a considerable variety of requests for information. Spraying of fruit trees and lime-sulphur spray formula probably lead the list. The trench silo was discussed with several farmers. Irrigated pasture mixtures, foul-foot, scours in calves, seed certification, methods of irrigation were also topics advised on.

Arrangements and correspondence centering on the organization of a calf club was attended to, and some prospects of another club being formed investigated.

A purebred Holstein bull from Bozeman arrived on the project this week. A shorthorn bull of the milking strain families also was brought in.

A farmer in Moiese was secured to speak on corn raising at a Farm Bureau meeting. The sheep committee of the Lake County Association took up the matter of their duties during the week.

Butterfat is selling at 33¢ and 35¢ and eggs at 17½¢.

L. B. Miller.

Minidoka

The Mini-Cassia Holstein Breeders Association held a most interesting meeting on Monday evening of the week ending April 12. Several new members were added to the club and a lively program was put on. Interest of the club members in the breed is keen and they are doing good work in promoting the Black and Whites. Two members have combined their cash to buy a good bull calf and much of the agriculturist's time has been spent in search of a suitable calf.

The embargo against California baby chicks is seriously menacing the usual supply of baby chicks. It is hoped that the project farmers will be able to supply their demands from Oregon, Washington and possibly Utah and Colorado.

More interest is being manifested in the Idaho ton litter contest and one day of the agriculturist's time was spent in inspecting these entries. Swine breeders in this vicinity have experienced serious losses in the pigs farrowed. A good many of these losses are not easily explained because it has been a very mild winter and the sows have had the run of the farms, plenty of exercise and a varied ration, but a great many pigs are born dead and others are weak and die after farrowing.

The weather through March and thus far in April has been rather disagreeable, which may explain part of the losses.

Creameries are paying thirty-nine cents for butterfat, eggs are 18 cents cash.

About one-half of the beets are seeded. The acreage this year is expected to exceed 6,000 on the north side and approximately the same for the Burley factory. Range sheep have practically all left the project.

Desert grass is fine but water scarce.

Considerable time during the week ending April 19 was spent on poultry and swine matters. The matter of securing baby chicks and hatching eggs received some attention. The Extension Department of the University of Idaho has undertaken to pool the buying orders for baby chicks and supply Idaho needs from Washington and Oregon hatcheries.

Interest continues to be manifested in the ton-litter contest, which received some attention.

Farmers and stock-men are considerably exercised in the minds about the advisability of tourists and farm laborers coming into the state from California. Recent arrivals of some automobiles from the infected districts in California have set farmers thinking. Protests are being lodged with the State Department of Agriculture.

Prices of butterfat have declined very materially in the last three weeks, the price being thirty-one cents this week.

J. T. Montgomery

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Newlands

During the week ending April 19 surplus animals from three herds were sold as a foundation herd for a ranch in the Fernley district. Some time was spent in assisting in this transfer. A registered bull will be added to this new herd at an early date.

In spite of the suspense that the project farmers are in at the present time on account of the rapid spread of the foot and mouth disease in California, there seems to be no let-up in the demand for dairy cows. There are always two or three ranchers on the waiting list for good dairy cows.

It has been the policy of this office to try to supply all demands for dairy cattle from local herds. Our dairy cow population is increasing rapidly and the quality of stock is as good as could be secured any place. By finding a ready market for all good animals, which are offered for sale, the dairy man having surplus stock is encouraged to keep on breeding good animals.

On Wednesday a trip was made to Reno, Nevada to attend a meeting of state and county quarantine officers and livestock men. This meeting was called by the Governor of Nevada to devise ways and means of protection against any possible invasion of the foot and mouth disease. Every effort is being made by the border counties to prevent possible infection. All automobile tourists and all train passengers suspected of having had any contact with ranch life in California, must submit to thorough disinfection upon entering Nevada.

At the Reno meeting plans were perfected for immediate handling of any outbreak in this state, so that there need be no delay in disposing of diseased or infected stock or proper quarantining of infected premises.

L. E. Cline.

North Platte

The greater part of the week ending April 19 was spent calling on farmers who are interested in shipping in a carload of purebred dairy cows and heifers from Eastern Nebraska. A dispersion sale of Holsteins will be held at Lincoln the 22nd. A number of farmers saw the advertisement in farm papers and expressed a desire to buy some of the cows. With a very little effort requests were received sufficient to make a shipment of a carload of cows and heifers. A trip will be made to Lincoln the first of next week and if good individuals can be bought with the money, orders from the different farmers will be filled and the shipment made.

At the request of a local bank a purebred Holstein bull was selected for one customer and another located for a second customer. The cooperation of local bankers is very helpful in developing dairying in the Valley.

Conferences were held with county agents in both Scottsbluff and Morrill counties in regard to boy and girl livestock clubs and dairy development work.

D. H. Propps.

Uncompahare

Considerable time during the week ending April 12 was devoted to poultry marketing organization work. Results are not what had been looked for, attendance at community meetings being generally very small and interest manifested rather disappointing. However, there are a few people in each district who are interested and the work will be continued. Three local meetings were attended this week in connection with the plan and visits to made to four local leaders.

Several requests for information regarding pastures have been received this week. Some seed has been purchased. Present indications are that there will be a fair acreage seeded during the season, some of which will not be put in till late summer or early fall.

Arrangements were made in part to secure a good, purebred Holstein bull for a ran at Montrose who was about to buy a grade, the ancestry of which was unknown. A Holstein breeder was successfully solicited for a pure-bred bull to be exchanged on Farm Bureau Day at the Fair this fall for a grade or scrub bull now in service without cost to the owner of the grade. It is planned to have at least six boars, six bulls and a few rams to exchange in this way.

H.A. Ireland.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

April 26, 1924.

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Western Irrigation Agriculture

Scottsbluff

During the week ending April 19 the weather was rather cold and windy, with only one light shower accompanied by a little snow amounting to 0.15 inch precipitation. Throughout the Valley much farming has been done and a considerable acreage of small grain, some sweet clover, and alfalfa was seeded. A small acreage of beets has been seeded.

At the Experiment Farm Plats V and VI in Field C and all the grain plats in Field K have been prepared for seeding and the wheat plats in Rotations 3, 5, 7, 18, 28 and 48 have been seeded. A considerable amount of miscellaneous work consisting of hauling manure, fencing pastures, etc., has been done.

Water was turned into the main canal of the Interstate unit about April 15 and it is presumed that water will be turned into the laterals as usual about May 1.

The average maximum temperature for the week ending April 26. was 70 with a maximum of 84 on the 23rd; the average minimum was 29, with a minimum of 20 on the 26th. The latter part of the week was stormy--snow with high winds. It has been rather a windy week, the average hourly wind movement for the period being 10.2 miles.

At the Experiment Farm the seeding of plats was continued until stopped by the storm. All the beet and grain plats in Field K, and Plats IV, V and VI in Field C, were seeded, the latter to alfalfa with barley nurse crop. There has been a considerable demand again this year for Trebi barley seed and the indications are that there will be a considerable increase in the acreages of both barley and sweet clover this year. There has been a decided increase in the beet acreage in the Valley.

Mr. A. C. Cooley of the Office of Demonstrations on Reclamation Projects spent several days in the Valley.

James A. Holden.

Demonstrations on Reclamation Projects.

Belle Fourche

The first two days of the week ending April 26 were spent with A. C. Cooley in making calls and outlining a program of work to be carried out by the agriculturist on the project.

Two men operating in the Vale territory selling stock in livestock and shipping associations under the Agricultural Credit Act were investigated as as they showed no permits or proper credentials. These men left the country hurriedly. Besides owing two board bills they received from \$100 to \$150 in

Belle Fourche (continued)

cash from stock sold.

Superintendent Aune of the experiment farm took charge of the tree planting on Arbor day. About twenty of the business men of Newell gladly turned out with the result that some 200 trees were set out in the public park.

A number of complaints have been received from sheep men that losses in lambs are unusually high this spring. With the lambs as with the slinking of ewes earlier in the season, the cause is undoubtedly due to moldy feed. But little bright, clean hay exists on the project. However, through notices sent out from this office the hay is being carefully forked over with the moldy parts thrown out and losses kept to a minimum.

The feeder pig growers are reporting good litters this spring. One grower has 40 sows. Eighteen have farrowed to date with 162 strong pigs. The young pigs are tusked when a few days old and the navel, nose, ears, and tail are painted with iodine. Plenty of dry bedding is kept in the pens and the pigs vaccinated before they are weaned. A crib is made for the young pigs so that they can get clean water and a supplementary grain ration all through the summer while on alfalfa pasture. Last year this farmer raised 7.3 pigs per sow and received \$16.07 for hogs sold.

One more dairy-calf member and one more sheep club member was secured during the week. Milk tests were run for two farmers and one short article was written for publication on the shipment of eggs.

Frank E. Miller

Minidoka

Most of the week ending April 26 was spent on dairy and pig matters, the registration and transfers of dairy cattle and the purchase of some dairy cows, and a bull calf for Mr. Ed LaRue and Mr. J. B. Redford from Henry McCall, Redmond, Oregon. The breeding of this calf and the individuality of his sire and dam make him a very desirable addition to the ranch of the Holstein sires of the project.

Considerable interest in the sale of cream through cream pools is manifest and if any reader of this report has some information on this subject the writer will be very glad to receive it. Two local creameries, one at Jerome and one at Twin Falls, are helping to hold the price of butter fat up in this vicinity. Hogs are six cents, butterfat thirty-seven cents, eggs seventeen cents cash.

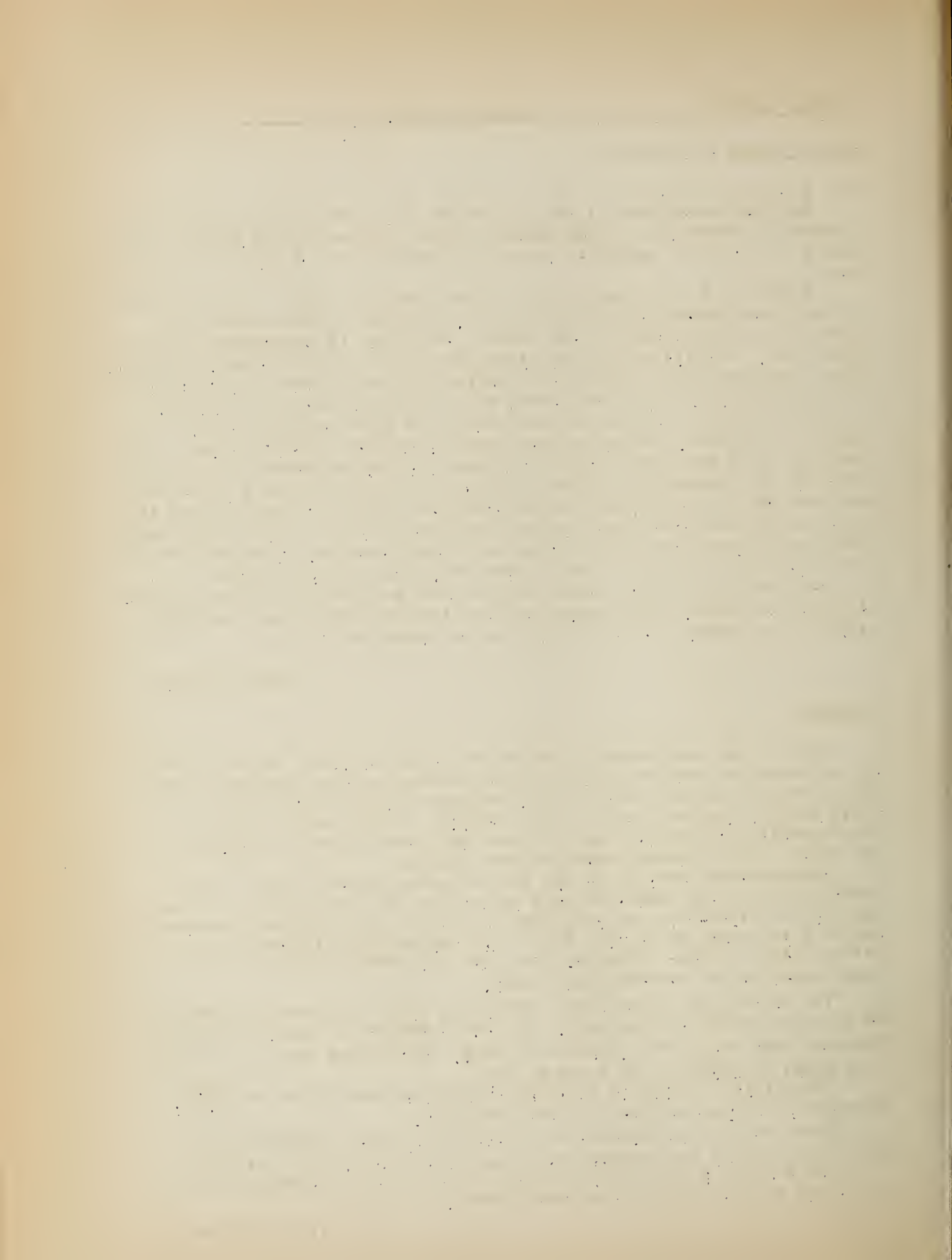
The project is experiencing some high, dry winds which are drying out the beet ground very rapidly. The sugar company's agriculturists are advising irrigation to germinate the seed. Sufficient rain to do this work would be certainly be a great help.

The alfalfa is slow in starting this spring due to the cold weather in the latter part of March and April.

Beet acreage is estimated at approximately seven thousand acres on the North side of the project and almost that much on the south side.

The continued drought and shortage of water makes farmers hesitate to put in as much corn as they had planned.

J. T. Montgomery.



Newlands.

During the week ending April 26 two articles were prepared for the local papers on the subject of appraisement and reimbursement for condemned cattle of livestock owners in Nevada in case the foot and mouth disease should reach this state. Project dairymen are much interested in this subject. They have been given assurance that they will be reimbursed 100% ^{appraisal} in case of condemnation.

In spite of the fact that project farmers are very much exercised about the spread of foot and mouth disease, there seems to be no lack of interest in dairying. In fact the local demand for good cows exceeds the supply. During the past week here inquiries have been made for three foundation herds, and inquiries have been made from adjacent valleys for four carloads. In addition to this four local dairymen have asked this office to locate registered dairy bulls for them to replace grades. It is necessary to spend considerable time each week in assisting in hunting up suitable animals for foundation herds and new bulls.

The foot and mouth disease situation continues to attract considerable attention and requires some time from this office. One new quarantine station has been established and instructions given for disinfection of tourists, their cars and baggage. The exodus of people by automobile and train from California is rapidly increasing, and the spread of the disease in that state is causing Nevada people to enforce stricter quarantine regulations. During the past week our County Board of Health issued an order prohibiting the entrance into this county of all fruits or vegetables not canned from California.

Just at this time, the scare over the foot and mouth disease is menacing our dairy herd testing work. Some of the members are afraid that the tester in his visits to dairy herds over the project might serve as a spreader of the disease in case it should appear in the valley and not be immediately recognized. It may be necessary to take special precautions in going from one ranch to another so as to overcome anxiety along this line.

One fam. bureau meeting was attended. At this meeting a two reel motion picture was presented on the subject of herd testing work. This was followed by a talk on the various causes of the variation in per cent of butter fat in cow's milk.

L. E. Cline.

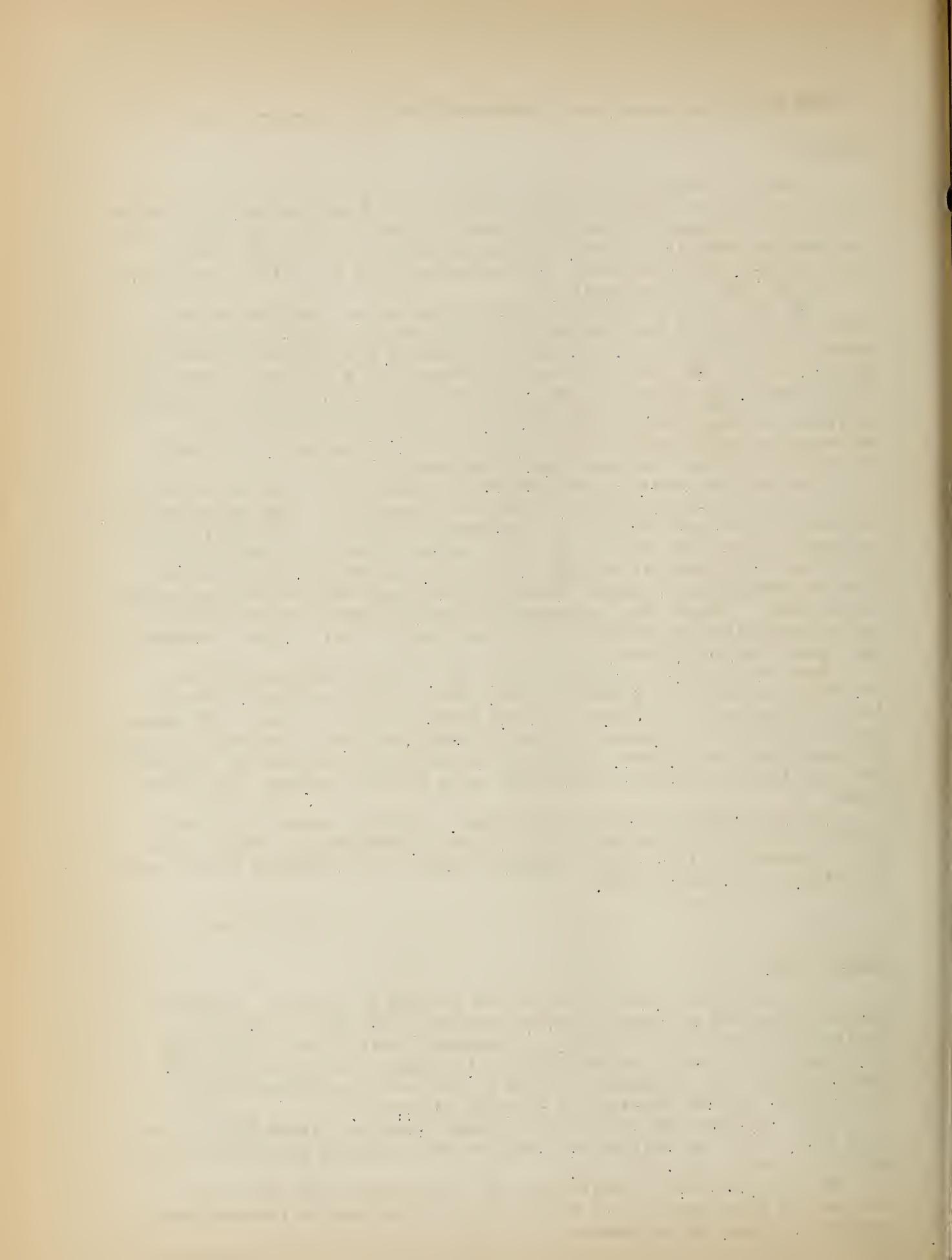
North Platte

The entire week ending April 26 was devoted to selecting purebred Holstein cows and heifers in Eastern Nebraska, and shipping them to Scottsbluff for project farmers. A dispersion sale of one of the oldest herds in the state was attended and 12 head, mostly young cows and bred heifers, were selected. Not all of the orders could be filled. The shipment reached Scottsbluff Saturday afternoon.

The 8 heifers were all sired by a bull whose dam milked 721.6 pounds in 7 days. Both the heifers and cows are out of tested dams with records up to 4 pounds of butter a day.

Farmers living near Scottsbluff who had cattle in the shipment met the car and took their cattle home. A few of the cows go to Fort Laramie and will be taken up in trucks.

D. H. Propps.



Uncompahgre

Regular milk tests were run during the week ending April 19, one new herd being included in the test. On account of stormy weather production on the day of the test was low.

Good interest in grass pasture is being manifested this spring. Two men were visited this week who are already seeding and several have pooled their orders for seed to send to a Denver seed house which is making special rates on grass seed, putting out seed for a mixture consisting of 15 pounds each of lawnless brome grass and orchard grass, 10 pounds meadow fescue, 6 pounds timothy and 4 pounds yellow blossom sweet clover for \$6.30 f.o.b. Denver. Even with transportation from Denver this is considerably under local prices and as the arrangement was made with the Animal Husbandry department of the Agricultural College, the seed is probably good quality.

Two men were interviewed regarding a ton litter contest which has been included in the fair premium list this year. There are very few litters sufficiently large to warrant entering the contest. Arrangements were made to secure pigs for five club members and bred ewes were located for some boys wishing to enroll in a sheep club. Some baby chicks were also found for two members of a poultry club.

One small flock of hens was culled. Attended one poultry meeting and arranged two others for next week.

Several short articles were furnished local papers.

Two men were interviewed with reference to joining the Hotchkiss wool pool.

H.A. Ireland.

Flathead

Nearly all of the week ending April 26 was used in some phase of the Lake County tuberculin test. A new veterinarian arrived for work in the county and time was taken to familiarize him with the county and help him line up work. Had a very difficult time trying to get a car for his use, finally securing one through the project manager, for a time at least. Some unmapped territory was charted for the convenience of the veterinarian.

Dr. Boyd, State Veterinarian from Kalispell was also in the county with Dr. Nelson, and some time was spent with him.

Two calf club meetings were conducted and the matter of membership taken up and organization completed in one instance.

Cow Testing Association records were compiled and articles containing summary were prepared for local and state press.

Several calls for assistance with milk fever and infected udder were received and provided for. Numerous inquiries regarding the gopher situation have come to the office, and so, with the cooperation of Dr. Nelson, plans are under way to experiment with a virus offered for sale through veterinarians for the control of the gophers. Several farmers have offered to furnish the gophers.

L. B. Miller.

W E E K L Y R E P O R T S
Of the Offices of
WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

May 3, 1924.

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Western Irrigation Agriculture

Huntley

The maximum temperature for the week ending May 3 was 79, minimum 27, and precipitation .24 inch.

Conditions continued favorable for field work during the entire week. Seeding of beets, grains and alfalfa in the irrigated rotation experiments was completed.

On the project, spring planting is well advanced and the seeding of beets is about two-thirds completed.

Dan Hansen.

San Antonio

The maximum temperature recorded for the two weeks period ending April 26 was 91, minimum 42, and greatest daily range 38. Rain was recorded on four dates; the total precipitation was 1.58 inches, and the greatest amount which fell during one day was 1.37 inches on April 25. A heavy wind accompanied the rain the night of April 25, which was the first "washing" rain to occur in this section in the past 15 months. Corn was flattened to the ground and the more rank growing fields of small grains have lodged rather badly.

Cotton was planted in the rotation and tillage experiments April 14 and 15, and all other early plantings of this crop were made April 15 to 19, inclusive. A good seed bed was obtained for all plantings and the moisture supply was good to excellent. Drying weather prevailed for several days after the plantings were made in some cases where the seed was not deeply covered the moisture was so rapidly dissipated from the top soil that germination failed to occur. The seed in some of these places will no doubt germinate from moisture supplied by subsequent rains, while some has been buried so deeply by washing that its emergence is not looked for. The stand secured generally is satisfactory.

Two late plantings of grain sorghum were made for the Entomological laboratory; one on field C3 April 16 and one on field A3 April 18. Both plats have emerged to good stands.

All corn plantings were thinned April 21 and 22. Alfalfa on Field E3 was mowed April 24.

First signs of the activity of cotton rootrot were observed April 16 when two plants of alfalfa were found dying of this disease. These plants were not less than 25 feet from the nearest area known to have been infected last year. No signs of renewed activity has been found in or around the

San Antonio (continued)

the periphery of spots killed last season.

Mr. R. D. Martin left for Greenville, Texas April 18.

Geo T. Ratliffe.

Scottsbluff

The average maximum temperature for the week ending May 3 was 64 with a maximum of 75; the average minimum was 34 with a minimum of 27. The precipitation for the week was only 0.23 inch coming in two showers. The average wind movement for the week was 6.8 miles per hour.

During the week the seeding of beets in Fields III, IV, and V in A and a portion of D was completed. The alfalfa plats in Rotations 40, 42, 44, 60 61, 62 and 64, in Field K were seeded.

The sweet clover pasture in Field C (Plat II) was fenced and some of the ewes and lambs turned in. These will later be used in the grass and sweet clover pasture tests. The Farm breeding flock was turned in the ditch bank pastures. The steers that will be used in the pasture tests this season were turned on their respective pastures--one lot going to the native grass pasture and the other on sweet clover in Field E.

Three lots of the experimental lambs that were held for further finishing and the farm flock of sheep were sheared, the fleeces averaging about 5 pounds.

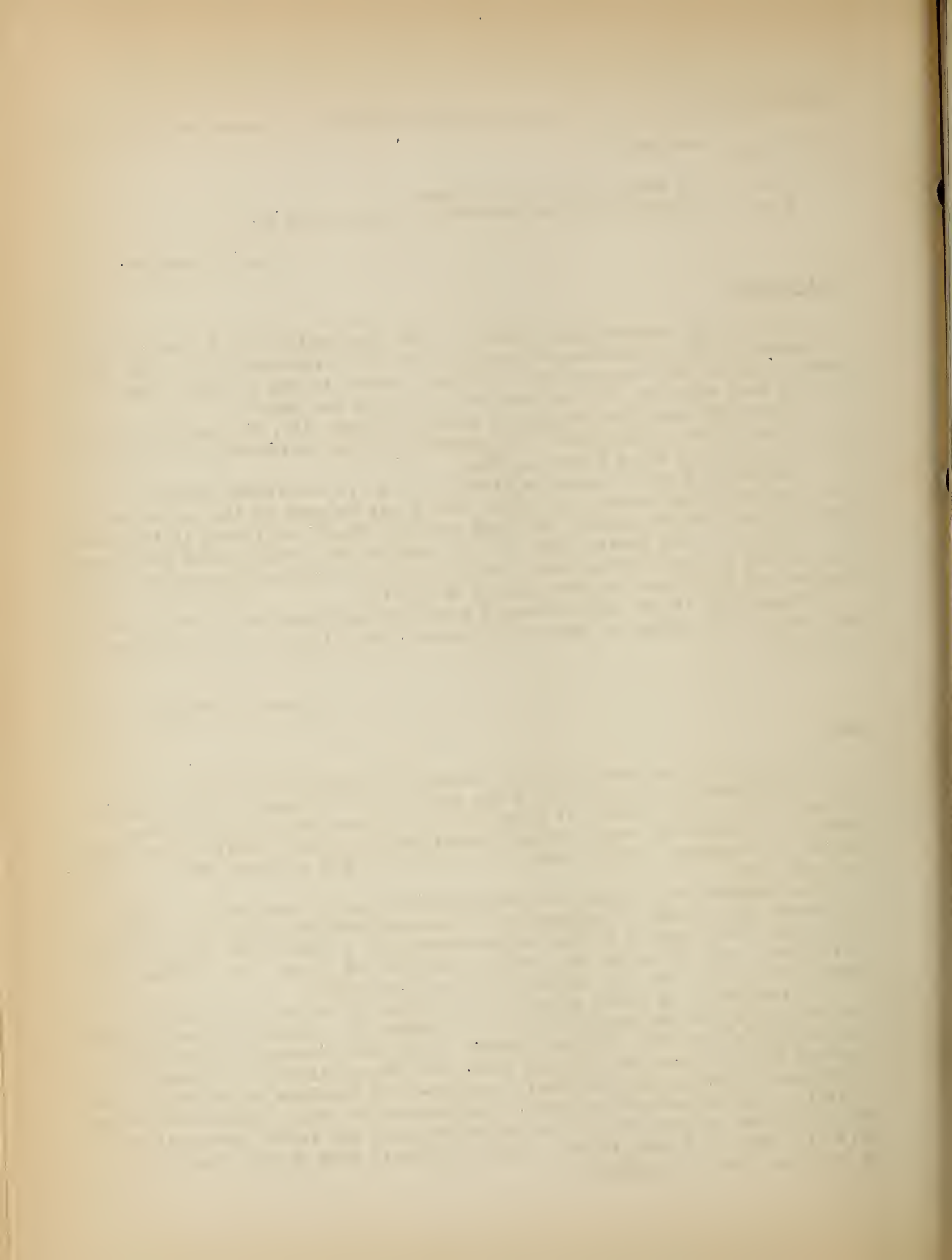
James A. Holden.

Yuma

The maximum temperature for the two-week period ending April 26 was 91.5; the minimum 34.5; greatest daily range 47.5. Although a temperature of only 34.5 on the morning of April 17 was recorded on the minimum thermometer, nevertheless frost damage was noticed on alfalfa, cotton, cucumbers, squash and tomatoes. Other parts of the project also reported similar damage to these crops.

The windy weather which has continued for most of the month of April has caused poor stands of cotton and has necessitated replanting in many instances. The first plantings which resulted in a good stand are now being cultivated. Hay prices on the project have dropped during the past two weeks. Hay f.o.b. Yuma is around \$18.00 per ton baled.

Quarantine regulations imposed by the State of Arizona against the foot and mouth disease in California has divided the project at the Colorado River. This means that the Yuma Indian Agency and Reservation along with the Bard District are cut off from Yuma. The State Militia of Arizona and quarantine officials are maintaining an air-tight blockade of pedestrian and vehicular traffic across the river. Conferences are being held to establish the quarantine station at the western entrance of the Indian Reservation. This will mean that the project on the California side of the river will be released from quarantine.



Yuma (continued)

Station work performed during the two-week period consisted of threshing barley, cultivating cotton in the rotations, planting cotton in the cooperative series, plowing grain stubble plats, pollinating dates, general irrigating and hoeing. A "Ruth" dredge was engaged from the Reclamation Service for three days to clean out 200-rods of irrigation ditches. Mr. C. S. Scofield visited the station April 16th to 23rd. Messrs E. E. Kauffman and R. E. Blair of the Bureau of Crop Estimates at Sacramento, California were here from the 21st to 23rd.

E. G. Noble.

Demonstrations on Reclamation ProjectsBelle Fourche

The date for the boys' and girls' camp at the experiment farm was set for July 14 to 19. On the 19th the annual farm picnic will be held.

Parts of two days of the week ending May 3 were spent on the project with H. M. Jones, dairy specialist of Brookings, in interviewing the members of the dairy-calf club and inspecting their young stock of registered Ayrshires.

The county fair program was discussed with county agent, Ellison. It is planned this year to give special prizes for corn, feeder hogs, feeder sheep and registered stock.

Two community meetings were attended during the week at which time the sugar beet question was talked over. With the idea of promoting the planting of beets another year, corn is urged as a crop to be sown very extensively this season. Two communities have offered special prizes for the best yields of corn from at least 10 acre plots.

It is now hoped that tuberculin testing of dairy stock can be again continued this summer. At a recent visit of a State veterinarian to the project he said the prospects were good for the testing of six herds mostly registered Ayrshires.

Milk tests were run for two farmers, two school, and one club meeting was attended.

Fe E. Miller.

Flathead

Four days of the week ending May 3 were utilized in work with the veterinarians on the county tuberculin test, assisting in injections, lining up work by notifying ranchers of time veterinarian would be there to inject, and correlating work with the work of the two veterinarians. Work will be practically finished at the end of next week, except retests and some "pick-ups."

The weather was clear and sometimes windy, resulting in the fields becoming dry and irrigation is well under way where it can be done, while un-irrigated sections could use some rain. The roads are dusty.

The regular monthly meeting of the Lake County Association was held at Ronan on Wednesday, the agriculturist acting as chairman in the absence

Flathead (continued)

of the president, Mr. Moody. The matter of letting four to five hundred stray cavuses and bulls range at will was further discussed at this meeting, the county attorney being present to give legal advice, and efforts are being made by the secretary and committee to find some remedy for these evils.

A club meeting was held in Moiese on Friday afternoon to arrange for formal organization meeting at which the parents are all invited. The matter of calves wanted, where obtainable, and prices, was discussed, also tentative membership.

Treatment was advised for thumps, indigestion in cows, milk fever, maninitis. Several more ranchers were in ^{the} office to get relief from gophers. They were advised of the rodent virus to be tried out, and that as soon as anything of value was observed, same would be put at their disposal. Poison formula given.

Had considerable difficulty in getting a car for use by veterinarian but finally secured one through the generosity of the project manager.

Butterfat dropped one cent to 32¢ and 34¢, eggs are 20¢ a dozen.

L. B. Miller.

Minidoka

Most of the agriculturist's time for the week ending May 3 was spent in farm visits dealing with hogs and dairy cattle. Some ton-litter entrants were visited and plans of management outlined and discussed. Arrangements were made for pasturing surplus young stock and dry cows on Bar M Ranch in the Raft River country.

We find that the chick crop on the project will be late this year due to having ordered early chicks from California and unable to fill the orders in April after switching to hatcheries in other states. Cold weather has caused rather high mortality among chicks shipped in recently. Turkey crop prospects are very good. More breeding flocks were reserved than have been at any time previously.

Dry weather continues and beet prospects are not good. Some farmers are trying to irrigate the fields to get the seed to grow but without much success. High winds have injured some fields badly. The percentage of injury cannot be estimated accurately at this time.

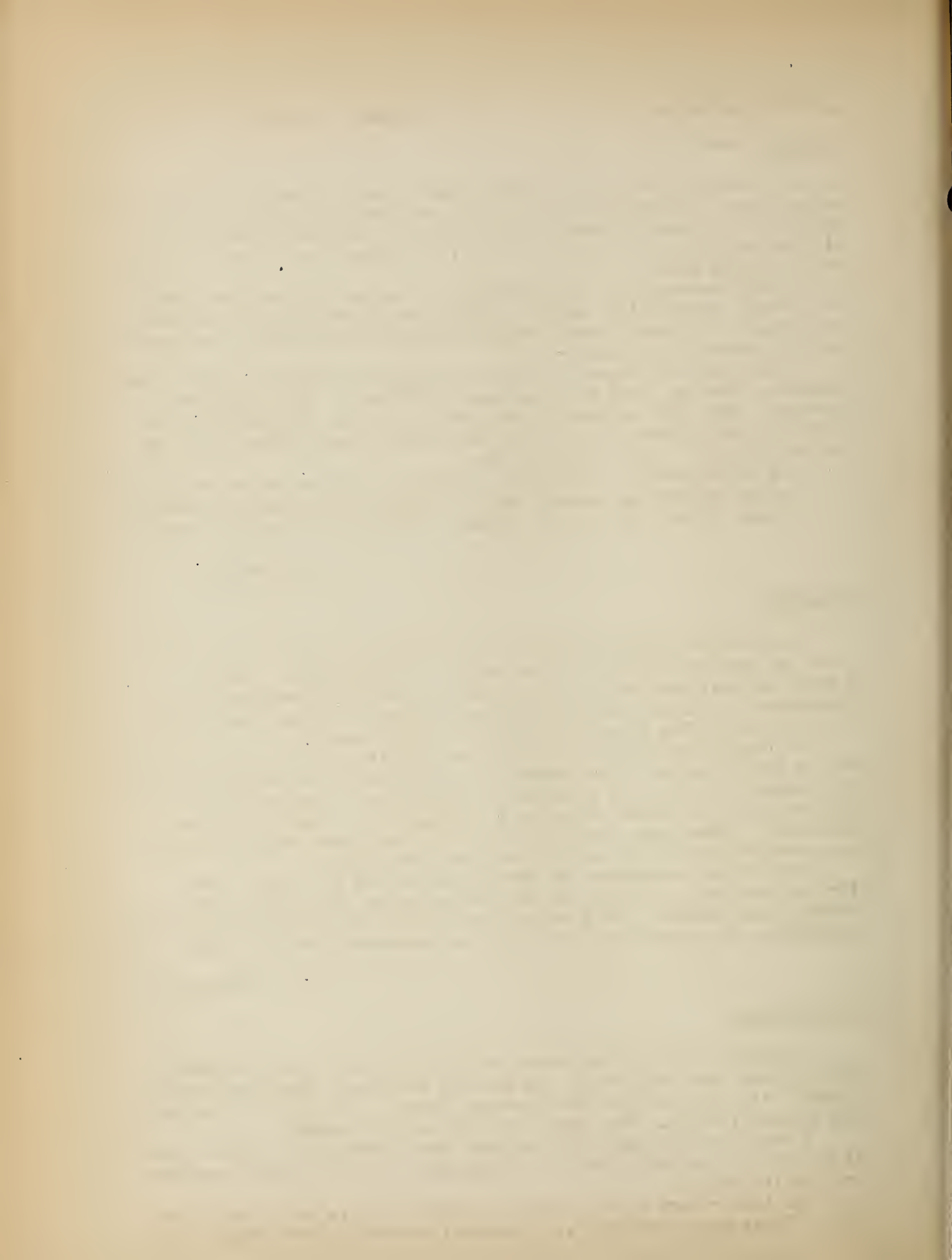
J. T. Montgomery.

North Platte

A couple of days of the week ending May 3 were spent in getting the purebred cows shipped in from Lincoln located in their new homes. Three of the cows went to Fort Laramie, Wyoming, and had to be reloaded and shipped locally. The owners are all well satisfied.

A young Holstein bull was selected and purchased of Barton & Sons' at Gering for Dr. Getz, south of Torrington, Wyo. Dr. Getz drove down and got the bulls.

The latter part of the week was devoted to boys' and girls' club work. Dates were arranged for organization meetings next week.



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May 10, 1924.

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Western Irrigation Agriculture

Newlands

The meteorological data recorded at this station for the period April 21 to May 5 is as follows:

The mean maximum was 73, maximum 85 on May 2; mean minimum 35, minimum 20 on April 26. The rainfall was 0.

The leveling of Field F has been completed, and seven of the plats seeded to barley, and ten to oats. The remaining four will be seeded later to corn.

A variety test with potatoes has been planted on CI. The varieties used were Early Rose, British Queen, Netted Gem, American Wonder, and Idaho Rural.

Twelve different grasses and five clover varieties have been seeded on the high school demonstration plats. One plat has been planted to a grass mixture. There remains several plats to be seeded to other forage crops.

One general irrigation has been given at the station. The following plats were irrigated:

B7 to 22 inc; C1 to 10 inc.; D1, 2, 3, 5, 6, and 7; all of F except 4 and 16; all of G; all of H; and Y2 to 18 inc. with the exception of Y13.

A pasturing experiment has been started on the sweet clover Field C with five cows on pasture. It is aimed to obtain the carrying capacity of sweet clover pasture compared to the carrying capacity of the mixed grass pasture on C. Records are also being kept of the effect of the pasture on the flow of milk.

E. W. Knight

Demonstrations on Reclamation Projects

Newlands

During the week ending May 3 considerable time has been given over to subjects of general herd management and turkey management. Subjects that have to do with the general care of livestock demand about one third of the time of this office, and these services, which are of an advisory nature, are perhaps more appreciated than any other one activity. There is perhaps a greater lack of knowledge along this line among project farmers than along any other farming activity, and work along this line is very essential to proper encouragement in connection with livestock development. The subject of sterility and the suspense caused by uncertain breeding is an important one with local dairymen. During the

THE HISTORY OF THE
CITY OF BOSTON

FROM THE FIRST SETTLEMENT TO THE PRESENT TIME

BY SAMUEL JOHNSON

THE HISTORY OF THE CITY OF BOSTON, FROM THE FIRST SETTLEMENT TO THE PRESENT TIME, BY SAMUEL JOHNSON. This work is a comprehensive history of the city of Boston, from its first settlement in 1630 to the present time. It covers the city's growth, its political and social development, and its role in the American Revolution. The author, Samuel Johnson, is a well-known writer and lexicographer. The book is written in a clear and concise style, and is a valuable resource for anyone interested in the history of Boston.

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Newlands (continued)

past week two demonstrations were made on dairy farms for the purpose of giving instructions in how to determine pregnancy and to demonstrate some of the causes of sterility.

One article of twelve hundred words on the subject "Alfalfa and Dairy Cows, a good Combination for Western Nevada", was prepared for publication. In this article some results of local dairy production was brought out.

On Friday a farm center meeting was attended and addressed on the subject of the foot and mouth disease and its present status in California.

During the week one registered bull was placed to head a foundation dairy herd recently selected by this office. The foot and mouth disease situation has not changed materially. Strict quarantine regulations are still in force on the Nevada State line and also in Churchill County. No fruit or vegetable products are allowed to enter this country from California and passenger and automobile travel is carefully guarded.

Mr Cline reports for the week ending May 10 as follows.

The alfalfa weevil menace is causing considerable concern among project farmers this spring. It is generally conceded that it is only a matter of a year or more at best until the alfalfa weevil will be found here and we will be quarantined from shipping hay into California from the Fallon district. The Fernley district is already quarantined. Several of the farms are still devoted entirely to growing hay for shipment and these farmers will be very badly crippled if hay shipments are stopped. There are some intimations that there are spots of alfalfa weevil infestation already in the Fallon district, but no official notice has ever been taken of them yet. Alfalfa weevil inspectors are expected to visit this project late this month. Their visit is looked forward to with considerable anxiety.

Reports are coming in from several sections of the project of the appearance of large numbers of grasshoppers, and their presence is causing much concern. On several farms last year the first crop of alfalfa was almost a total loss due to the grasshoppers. Reports of grasshoppers have not been sufficiently widespread to cause general alarm yet.

L. E. Cline

Belle Fourche

Cold weather has held back farm operations during the week ending May 10. However, most grain with the exception of corn is in the ground. Very little wheat was planted on the project this spring. Germination tests have been made for farmers in many cases and corn intended for seed purposes will not be planted, as germination tests of from 30% to 50% were not unusual. Early yellow corn of high percentage of germination has been shipped in and the experiment farm has furnished the white dent corn for seed in a number of cases. One community has definitely promised cash prizes of \$100 for the best yields of 10 acre fields of corn and another community has promised at least \$25 for similar purposes. More corn is needed to supply the rapidly increasing business of feeding lambs and hogs during the winter. Also with land properly prepared it is hoped the corn crop will be followed by beets another year.

..:

Belle Fourche (continued)

Cream, milk, and skim milk tests were run for three farmers. Milk scales were ordered for one farmer who will keep a complete record of his dairy. One article was written for publication on the use of registered dairy sires. One club meeting was attended.

Butterfat is now quoted at 32¢ and eggs at 14¢.

Frank E. Miller

Shoshone

A trip was made to Frannie during the week ending April 26 as several farmers wished to have their cows tested for tuberculosis. The only feasible way of getting this done is to have them tested at the same time and get our deputy state veterinarian to make a rate on the lot. Six farmers owning about 35 head would like to have them tested.

I was called out to a farm where the chickens had been dying with fowl pox and canker. Nearly half the flock had died or were affected. The fowls were confined and fed dry mash in a self feeder and sour milk and were given grain in the litter in a scratching shed. I advised giving them free range, feeding them in the open, segregating the sick birds, and cleaning and disinfecting the hen house.

A visit was made to Mr. G. A. Wright at Cody who was formerly of this office. A Pearson, president of the Big Horn Basin Wool Growers' Association, and A. Martin, president of the county Farm Bureau regarding selling the wool on the project. They thought that the pooling plan as worked last year would be as feasible as any.

Milk samples from cows which are being bred to the Government bulls were collected and tested during the week ending May 3. One day was spent in demonstrating the use of poison and carbon bisulphide in the eradication of prairie dogs. Carbon bisulphide was used in the holes near the farm buildings. There are several small towns of prairie dogs on the project and no one seems to pay any attention to them until they become so numerous that they seriously damaged several acres of irrigated crops.

Talked with most of the wool growers regarding shearing and selling their wool and arranged for a meeting in this office on the evening of the 3rd. Nine were present representing about two thirds of the sheep on the project. The wool will be stored in the warehouse at Powell and a committee was elected to sell the whole crop. There will be about a carload.

Conferred with the corn club on Saturday at Deaver. The members have their land manured and plowed and their seed tested. They were able to get home grown seed which germinated well.

O. J. Grace.

Shoshone (continued)

The week ending May 10 has been favorable for field work and potatoes and beets were planted. The water was turned into the canals on the 3rd and some irrigating has been done.

The first two days of the week were spent in the office writing reports and assisting in the distribution of alfalfa inoculation and seed corn. A part of Wednesday and Thursday were spent with the local veterinarian and the state veterinarian. The local veterinarian was called to attend a cow that had badly infected feet and mouth and he could not be sure of his diagnosis and called the State veterinarian. The cow was isolated for a few days for observation and the case was diagnosed as mycotic stomatitis.

I conferred with the lamb club at Penrose Wednesday night and drove to Basin to see County Agent McDaniels Friday.

Saturday I drove to Deaver to get the contracts for the Government bull signed up. The first man of the group expecting to use the bull had so much trouble getting water for his stock and had five bloated the night before that he would not sign the contract. The other members of the group were uncertain whether they could use the bull if this one dropped out. Will see them again the first of the week.

The Park County Farm Bureau Board met in the office Saturday afternoon. They are keeping their marketing association for poultry and beans alive and are planning a big farmers' picnic for the last of July.

O. J. Grace.

Uncompahgre

Most of the week ending May 3 was taken up with a trip to the west end of Montrose County Agent King on various lines of work. A poultry farm operating a small hatchery from which several flocks of purebred poultry have been started around Montrose, was visited. On this farm only Single Comb Rhode Island Reds are kept and all breeding stock is trap nested. A specialty is made of 30-day old chicks on account of the difficulty of shipping day-old chicks. Last year this farm had trouble in securing orders until a small shipment was made to three persons at Montrose since when more orders have been secured than could be filled.

A cheese factory has recently been established at Norwood. Although this is not a dairy section the enterprise promises well. The proprietor was consulted regarding the business and told of the sentiment in favor of a cheese factory at Olathe on this project. He stated that he hoped to be in a position to extend the business soon and Olathe should offer a good opening.

An investigation was made of an alfalfa field affected with some disease or parasite which is causing some concern in the locality.

Uncompahgre (continued)

A similar condition has been found in Delta County. Samples have been sent to the Agricultural College for examination. Whatever the cause, it affects the crowns and roots, causing the death of the plants.

A meeting of the organization committee of the poultry marketing association was held Saturday to discuss the poultry situation. The rush of spring work has slowed up the organization work considerably and it seems improbable that it can be finished by the time set.

Requests for pasture grass seed for 16½ acres have been received recently and were referred to the Animal Husbandry Department of the College which has been given special prices by a Denver seed house.

H. A. Ireland.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

May 17, 1924.

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Western Irrigation Agriculture

Nowlands

Mr. Knight reports for the period May 5 to May 12 as follows:

The meteorological data recorded at this station for this period follows:

Mean maximum 80.3, maximum 89 on the 9th and 10th; mean minimum 37.4, minimum 31 on the 5th and 6th. There was no rainfall:

The warm days throughout most of the past week has made possible the seeding of plats D4, E3, 4; F4, 16; H17, 18, 19 to corn.

Plat W, that borders the main road, has been disced and planted to sweet clover.

The work still continues on the High School grounds. The corn plats have been leveled and furrowed. Water will be run through the furrows and then corn planted.

One irrigation was given during this month to the following plats: B5, 6; C6, 7, 8, 9, 10, 11, 12, 13; D4; E1, 3, 4, 5, 6; F4, 16; H6, 7, 8, 9, 10, 11, 12, 18, 19; and the orchard.

E. W. Knight.

San Antonio

During the two weeks ending May 10 the range of temperature has been from 91 to 50, the entire range taking place April 29. Temperatures have averaged below normal for this season of the year, the mean of maximums recorded being 78.3 and of the minimums 56.8. Light showers and heavy morning dews have caused some inconvenience. The total precipitation for the period was .98 inch.

Following a rain of 1.37 inches which occurred April 25, the cotton seed in practically all "ships" referred to in a previous report, germinated, and excellent stands occur on all plats. The cool, damp weather has retarded growth of all spring crops but their condition is otherwise excellent.

Oats for hay were mowed May 1. Four plats of oats for grain (A4-6, 12, 16 and A5-8) were mature and were harvested May 3. The four remaining plats are several days later. The oats on all plats lodged badly, ranging from 10 to 100 per cent, following rain and wind of the latter part of April.

Station work included two cultivations of all plantings of cotton, corn, grain sorghums and sorghos in rows. Orchards were cultivated with the "Cyclone" harrow; ligustrum hedges at the farm residence and the farmstead were trimmed; farm fences were weeded; terrace borders around rotation plats A4-7 to 10 were rebuilt; and miscellaneous chopping of

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF THE HISTORY OF ARTS

OFFICE OF THE DEAN

CHICAGO, ILLINOIS

TO THE HONORABLE CHAIRMAN OF THE BOARD OF TRUSTEES

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AND TO THE HONORABLE CHAIRMAN OF THE BOARD OF ACADEMIC AFFAIRS

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AND TO THE HONORABLE CHAIRMAN OF THE BOARD OF FILM

AND TO THE HONORABLE CHAIRMAN OF THE BOARD OF RADIO

San Antonio (continued)

Johnson grass was continued.

Mr. Homer C. McNamara, superintendent of the U. S. Cotton Breeding Station at Greenville, Texas was a visitor on May 7.

Geo. T. Ratliffe.

Scottsbluff

The average maximum temperature for the week ending May 10 was 63 with a maximum of 86 on the 4th; the average minimum was 30 with a minimum of 21 on the 9th. The week was one of high winds, the average hourly wind movement for the week was 14.4 miles per hour. On several days it approached a 40-mile velocity. The damage on the lighter soils, especially the north side, was considerable. On some farms the top soil was taken off the depth of the plowing. Many grain fields were blown out and a considerable acreage of beets will have to be reseeded.

There has been no rain since April 29. With the exception of 1913 this has been the dryest year recorded at the Farm.

During the week the corn plats in Rotations 6, 65, 26, 16, 32 and 62 were plowed and prepared, the fencing of pastures was completed and 95 fall shotos placed on pastures in Field H; 5 on alfalfa pasture in Rotation 65, and 6 with the steers on sweet clover in Field E.

Considerable work has been done on the driveway into the Farm. The old poplars, which were rapidly dying, have been removed, the road widened and graded and Chinese Elms have been set out on each side of the drive.

James A. Holden.

Yuma

The maximum temperature for the two week period ending May 10 was 102.5, the hottest day of the season so far; the minimum temperature was 45.5; the greatest daily range, 51; there was no precipitation for the period.

Unit activities on the project were confined mostly to thinning and cultivating cotton. Normal stands are reported on the project. Alfalfa hay prices remain around \$18.00 per ton baled f.o.b. Yuma, Ariz. The Arizona quarantine regulations against the foot and mouth disease in California have been modified to permit pedestrians and vehicular traffic with produce from the farms on the Indian Reservation and Bard units entrance into Yuma.

Station work performed during the two-week period consisted of harvesting barley and second cutting of alfalfa on the irrigated rotations; harvesting of winter grains in variety tests; harvesting field peas on the plat varieties test; plowing of grain and pea stubble plats, general irrigation and hoeing. Prof. Briggs of the University of Arizona at Tucson, and Leslie Beattie in charge of the Yuma Date Garden were station visitors on May 10.

E. G. Noble.

Demonstrations on Reclamation ProjectsBelle Fourche

For the week ending May 17 over two days were spent in getting out the monthly newsletter of four pages. Included with the letter circulars were enclosed on herd improvement through the use of registered sires and a summary of the business of eleven farms on the Belle Fourche irrigation project for the year 1923. Six hundred and twenty-five copies were mailed out.

The State Livestock Sanitary Board has definitely promised to continue tuberculin testing work with dairy herds of the project this summer. Thirty-one owners of dairy herds signed accredited herd agreements over a year ago and it is hoped that all of these herds can be tested in the next few months.

One article of 715 words was written for publication on the county fair and one day was spent with the county agent on livestock matters and club work pertaining to the fair.

One vaccination demonstration for hog cholera was given.

F. E. Miller.

Flathead

Four days of the week ending May 17 were devoted principally to the Project Tuberculosis test of cattle now completed except for retests and some herds and cows missed by the veterinarians. One range herd to be brought into the county was tested before being turned on the range. Cooperation is good in preventing untested animals being brought into the project.

One calf club meeting was held and some time during the week used in supplying the needs of club members for heifer calves. A local man in putting out 50 pigs to the boys and girls and has asked the cooperation of this office in that work to arrange contracts and supervision.

A case of necrotic stomatitis in a calf caused considerable excitement as it was supposed to be foot and mouth disease. The agriculturist was called and was able to assure them, until a veterinarian could be secured to verify the diagnosis, that it was a calf disease only.

Weather has been rainless, and the unusual winds have dried out the soil considerably. Irrigation is in full swing, and much needed.

Eggs are selling at 20¢. Butterfat remains at 31¢ and 33¢. Hogs priced at \$6.30 to \$6.75 and beef at 5 and 6 cents.

L. L. Miller.

THE HISTORY OF THE
CITY OF BOSTON

The city of Boston, situated on a neck of land between the harbor and the bay, has been the seat of government and commerce since the first settlement in 1630. It was the first city in America to have a city government, and it was the first to have a city council. The city has a long and rich history, and it has played a major role in the development of the United States. It was the site of the Boston Tea Party, the Boston Massacre, and the Battle of Boston. It was also the site of the first public school, the first public library, and the first public hospital. The city has a diverse population, and it is known for its education, culture, and industry.

The city of Boston is a major center of commerce and industry. It is home to many large corporations, and it is a major port for the United States. The city has a diverse economy, and it is known for its education, culture, and industry. The city has a long and rich history, and it has played a major role in the development of the United States. It was the site of the Boston Tea Party, the Boston Massacre, and the Battle of Boston. It was also the site of the first public school, the first public library, and the first public hospital.

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Minidoka

The chief matter of interest of the week ending May 10 was the visit with Mr. Cooley and reviewing with him some of the work undertaken in connection with the Annual Program. Considerable time was spent in farm visits at the solicitation of individual farmers on particular problems connected with pigs or dairy cattle.

Farmers at one community meeting turned out well to listen to the discussion of the Foot and Mouth disease in California in relation to Idaho livestock industry.

The principal part of the week ending May 17 was taken up with farm visits on dairy matters and at the State Dairy Conference at Gooding.

This conference organized itself into the Idaho State Dairymen's Association, the objects of which are all matters pertaining to the welfare and promotion of dairying in Idaho. About two hundred persons attended the association. All dairy interests were represented including the dairymen, creameries, cheese makers, dairy cattle breeders and the general public. The affairs of the organization as outlined are conducted by the Board of Control composed of one representative from each of the dairy breeds, a representative from the creameries, another from the cheese factories, and the public. Annual dues were set at twenty-five cents and it was decided to ask all persons in Idaho interested in dairying to identify themselves with this organization. An excellent program was put on. Governor C. C. Moore of Idaho made an excellent address on "Considering the Present Situation of Agriculture in Idaho and its Relation to the Dairy Industry and Possibilities of the Dairy Business". Mr. Brown discussed the cream pools and the business of cooperative manufacturing of butter. Representatives of the various breeds of dairy cattle spoke for their breeds.

The program was largely inspirational in character and people who attended the conference went away considerably cheered up with the prospects for dairying in Idaho.

J. T. Montgomery.

North Platte

Most of the week ending May 10 was devoted to boys' and girls' club work. Three pig clubs and one calf club were organized and considerable work done in other communities. Indications are that the number of livestock clubs will be about the same as last year. One lamb club will be included this year.

Part of the hogs at the Experiment Farm were put on pasture during the week and the spring pigs were vaccinated.

In company with Superintendent Holden a trip was made to Torrington Saturday to attend "Hog and Poultry Day" at the State Experiment Farm near that place. The program included a discussion of pig feeding tests, poultry work and a meat cutting demonstration.

D. H. Propps.

Shoshone

Two sheep shearers from Bridger, Montana were on the project during the week ending May 17 shearing the small flocks with a portable machine. I have assisted in making their schedule so that all of the flocks will be sheared before they leave the project.

Two men from Jasper have been in town the past week trying to promote a Dairy Loan Association. Business men are interested but as stock must be sold before loans are made they do not report much progress.

The Executive Committee of the Park County Potato Growers' Association met in this office Saturday evening. The greater part of their crop the past year has been handled by Albert Miller and the prices have generally been satisfactory. The contract with Albert Miller will probably be renewed to handle the 1924 crop.

O. J. Grace.

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WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

May 24, 1924.

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Western Irrigation Agriculture

Huntley

The maximum temperature for the week ending May 24 was 73, minimum 31, and precipitation 0.14 inch.

Rather cold and dry weather occurred during the past three weeks and it is becoming necessary to irrigate fields to provide moisture for germination of late seeded crops. Water was placed in the canals on May 20.

At the station, the seeding of all crops was completed. Other station work consisted of irrigating alfalfa and pastures and preparing other fields for irrigation. The pasturing season began on May 15, on which date dairy cattle were placed on mixed-grass pastures in the experiment to test the value of top dressing pastures and in the maximum carrying capacity test.

Station visitors on May 24 were Director F.B. Linfield and Prof. C. N. Arnett, of the Montana Experiment Station, and Mr. E. W. Sheets of the Bureau of Animal Industry.

Dan Hansen

Newlands

The meteorological data recorded at this station for the period ending May 19 is as follows:

Mean maximum 85.0, maximum 92 on the 17th; mean minimum 47.1, minimum 39 on the 14th. There was .02 inch of rainfall on the 14th.

The mean maximum temperatures this month promise to exceed the average mean maximum. To date the mean maximum has been 82.1 compared to an 18 year average mean maximum for May of 72.9. The 92 degrees registered on the 17th is the highest maximum temperature recorded in May since 1919.

The variety field corn test has been planted on the High School grounds. The varieties being used are Oregon White Dent, Wolfs Prolific, Wimples, Rainbow, Wisconsin #7, Early Murdock, Squaw, Rustler, Minnesota #13, Wisconsin #25 and Golden Surprise.

At the station the sweet corn and melons have been planted. Both the sweet corn and cantaloupes will be grown in an experiment to determine the effect of commercial fertilizers on the yields. The fertilizers being used are nitrate of lime, acid phosphate and potash.

There has been one irrigation given. The plats irrigated were D1, 2, 5, 6, 7; E2, 7, 8; F5, 6, 7, 8, 9, 10, 11, 12, 13; all of G; all of H except 1, 2, 5, 19; and Y2, 3, 4, and 5.

Newlands(continued)

The meteorological data recorded at this station for the period ending May 26 follows:

Mean maximum 86.3; maximum 89 on the 19th, 20th and 24th; mean minimum 50.6, minimum 45 on the 24th. There was a trace of rain on the 22nd.

Further plantings at the station during this period were squash and pumpkins on H16, hog millet on W, sweet clover on A between the grass plats and old orchard, and cabbages in the garden.

A good deal of the time of two men has been put in cultivating and thinning beets. This is a rather tedious, slow job and consumes considerable time each year. The time of two other men is used in the garden. As most of the garden truck is now planted it requires much time in irrigating and cultivating. There still remains the tomatoes to plant. This will be a variety test as of former years.

One irrigation has been given. The plats irrigated were D5, 6, 7, 11, 22 inc.; C2, 10 inc.; D3, 8; E2, 5, 6; F1, 2, 3, 14, 15; H1, 2, 5; and Y6, 12 inc., 14, 15, 16, 18.

E. W. Knight.

Scottsbluff

The average maximum temperature for the week ending May 17 was 71 with a maximum of 84 on the 16th; the average minimum was 32 with a minimum of 21 on the 15th. No precipitation has been recorded this month. The average hourly wind movement for the week has been 6.3 miles per hour.

The corn plats in Notations 55, 6, 26, 16, 32 and 62 in Field K and Plat III in Field C were planted during the week. Plows were started in Field E which will be planted to potatoes and corn. Some additional work was done in completing the driveway into the farm.

Two lots of spring pigs were placed on pasture test, 25 in each lot; one receiving a 2% corn ration and the other on self feeder.

The unusual weather conditions have practically stopped crop growth. Many of the beets are not yet up and will not germinate until rain comes or they are irrigated.

The average maximum temperature for the week ending May 24 was 66 with a maximum of 84 on the 18th; the average minimum was 37 with a minimum of 32 on the 22nd. Light showers fell on the 22nd and 23rd amounting to 0.25 inch. The total precipitation to date for the year is only 1.81 inches as compared with a 12-year average of 4.42 inches.

Water has been run continuously throughout the week. All the alfalfa, sweet clover and grass pastures in Fields A, B, C, and H have been irrigated. The sugar beets in Field D were irrigated and with the light showers the latter part of the week, these will come through in good shape.

The last of the experimental lambs, some spring lambs and old ewes went to market this week, receiving top prices for all of them.

James A. Holden.

Demonstrations on Reclamation Projects.Belle Fourche

The poultry, pig, and Ayrshire dairy clubs held meetings on Saturday of the week ending May 24. The two boys and girls poultry clubs and the adult poultry club will meet at William Warren's farm next Monday afternoon at which time Miss Clara Sutter of the State extension service will be present to give some poultry demonstrations and also to aid in selecting a team to give demonstration work at fairs and various community meetings.

Arrangements have been made to hold a Balanced Agriculture Meeting at Newell on June 12. Three specialists from the State College will give talks on poultry, animal diseases, and marketing. Demonstrations and motion pictures for both afternoon and evening will be on the program.

Mr. Heebink, livestock specialist from the State College will be on the project early the coming week. It is now planned to hold three all-day tours. The sheep, pig, and dairy clubs will each be given a day. A picnic lunch along the roadside is planned as well as the discussion of some phase of the work at each farm.

The Project Ayrshire Club now has 20 members. A very suitable club house for meetings has been obtained. The boys and girls are taking a real interest in decorating the rooms and furnishing chairs and tables etc. to make the house attractive. The Ayrshire Breeders Association has offered a trophy to the club. There promises to be real competition and a fine showing at the county fair as a result.

With the liberal prizes offered this year by the various communities for the largest yields of mature corn more interest has been shown in seed selection and the proper fitting of the ground. We expect fine results from this contest.

Peter Beaulieu of Vale has 224 live pigs from 31 pure-bred Poland China sows. Mr. Beaulieu has plenty of range on his farm, good water, and feeds alfalfa with a supplementary grain ration.

Frank E. Miller.

Flathead

Fair and warmer weather prevailed for the week ending May 17 while crops are in need of some rain.

Three days of this week were employed in the tuberculin test assisting Dr. Nelson on retests and scattered herds and cows that had been missed by the veterinarians on first test.

Three days were used in various duties in the office and in and around Bonan. The Monthly report of the Cow Testing Association was prepared with the tester, and a 450 word press article on the C.T.A. prepared and distributed. Some time was put on pig club work, a local business man arranging to place 50 pigs among the boys and girls. One meeting with 85 in attendance was conducted. Farm Bureau meeting at Reservoir Valley was also attended.

Crops are beginning to show the absence of rain for nearly two months. Summer fallowed fall wheat is looking in splendid condition at present, but some of the other fields are not so promising.

Butterfat is 31 and 33 cents per pound. Eggs are 18 cents per doz.

Flathead (continued)

It was somewhat showery during the week ending May 24 but the rain was insufficient to help much. The cloudy and cool weather accompanying, was of some benefit by checking evaporation. Crops were not materially injured up to the present time.

One day was employed with Dr. Nelson locating some herds to be tested for tuberculosis. He finished work on Thursday, and reported back to Helena.

One community and school picnic was attended and club work was discussed with parents and children. The response was good.

It was necessary to put some time on the Cow Testing Association in correspondence, and in conference with the President and Secretary regarding resignation of tester and selecting his successor.

The county or project fair is slated for discussion at the Lake County Association meeting next week, so some time was used to notify delegates and interviewing town organization representatives regarding their hopes for locating the fair.

Four samples of milk were tested, a large herd of hogs with numerous sick ones was visited with veterinarians, and animals posted.

Butter is worth 30¢. Butterfat is 31¢ and 55¢ and eggs are 13¢.

L. B. Miller.

Newlands

On Tuesday of the week ending May 17 a farm center meeting was attended. At this meeting a two reel motion picture was presented by the County Agent, on the subject of herd testing. The title of the picture was "The Conversion of Johnathan Barr". This picture is very good, and presents the matter in an interesting way. Following this picture a talk was given on the subject of herd record work, in which the need for constant testing was emphasized.

During the week an article was prepared for the local press on the herd testing work of the local association for April. On Friday, assistance was given in a cooperative shipment of stock in which were four grade dairy bulls. These bulls were taken in as part payment on young registered bulls, which have already taken the place of the grades.

L. E. Cline.

North Platte

Most of the week ending May 17 was devoted to Boys' and Girls' Club work. Two calf clubs were organized. Some time was spent in getting calves and pigs for members. We now have four calf clubs, two pig clubs and one sheep club in Scottsbluff County. There are two clubs in Morrill county--one calf and one pig club.

The Calf and Pig clubs north of Henry held a joint meeting Saturday evening to which the parents were invited. After the business meetings, which were held separately in a grove, weiners were roasted and marshmallows toasted. Each member of this Calf club has a calf sired by an experiment

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North Platte (continued)

farm bull which was in service in that community last year. The members chose for the club the name "Segis Topsy" which is the name of the sire of their calves.

Boys and Girls Calf Clubs and Pig Clubs occupied most of the week ending May 24. A sheep club, the first in the valley, was organized with six members. The Progress Pig club at Morrill was reorganized and pigs weighed and records started in the Fairview and Frontier Clubs.

A conference of local leaders of livestock clubs was held at Morrill Saturday afternoon. Mr. Hepperly, State leader from the Lincoln office was present and discussed club problems. A similar conference will be held at the Experiment Farm August 7th.

Two lots of spring pigs were immunized for farmers who have immune herds. All the purebred breeders in the Valley are now keeping their herds vaccinated.

D. H. Propps.

Goshone

The week ending May 24 has been favorable for field work and plant growth. We had three light showers but they were of little value. Small grain, potatoes, and beets are coming up. Very little seed germinated until it was irrigated. Feed on the range is excellent. Sheep men are saying a high percentage of lambs.

About half the week has been spent in trying to get lambs for the lamb club members. Seventeen were picked up and delivered. Nearly every one on the project wants to raise inferior lambs this year. Inferior lamb hunters are a nuisance at some of the sheep camps.

A farmer near Deaver purchased a Babcock tester and I helped him to set it up and test one lot of milk.

O. J. Grace.

Uncompahgre

Action was taken by local organizations during the week ending May 10 to strengthen quarantine regulations against possible sources of foot and mouth disease infection. Resolutions were passed by a joint committee urging closer inspection of tourists from the west and condemning the use of second-hand sacks. A report was sent to neighboring towns recommending similar action. By order of the State Board of Health a policeman was stationed on the road from Grand Junction near Delta to stop all east bound cars to determine if any coming from California had not been disinfected. In four days an average of 170 cars per day passed from the west of which 25 per day came from California, but all had certificates of disinfection.

Two cases of sickness among cattle were reported locally this week and were investigated for the moral effect rather than because of any probability that they could have foot and mouth disease. A trip

Uncompahgre (continued)

into the range country above Ridgway was made with Mr. King on Saturday to investigate a report of heavy loss among a herd of dairy cattle on a homestead. It was found that the owner had lost 32 head of which half were cows just fresh, the rest being calves from these cows. Only cows just due to freshen were affected, all but two of these dying soon after freshening. The calves lived for two to three weeks then all but one died. The losses had occurred some time before the visit to the place so no post mortems could be made and no diagnosis was possible. The owner stated that he had had a similar experience three years ago.

Milk tests were run for six men.

One poultry marketing meeting was attended.

Markets: Alfalfa hay \$10.00, barley, 1.65 cwt., beet cattle-bulk of sales, Denver \$9.75; butterfat, 33¢ lb; chickens 12-14¢ lb.; corn, \$1.75 cwt., eggs-trade price 15¢; bulk of sales Denver; hogs, \$6.80-\$7.00, oats, \$1.75 cwt; sheep, cwt., \$16.25 plus; turkeys, no market; wheat, \$1.60 cwt.

Mr. Cooley visited the Uncompahgre project the first part of the week ending May 17, and the time from Tuesday morning until Thursday noon was spent with him. During his visit he spoke before a local luncheon club on the work and report of the Fact Finding Commission.

Milk tests were run on two herds.

A pooled order for grass seed was received and distributed. This order represented about 20 acres, and was sent in by several men. Several others have already seeded and some still expect to order seed. A pasture seeded the last half of April was visited. Fifty pounds of seed per acre had been used and prospects are good for a perfect stand.

Local markets: Alfalfa hay, \$10 per ton; barley \$1.65; butterfat 34¢, 1st grade; beef cattle, bulk of sales Denver \$8.50-\$9.50; chickens 12-14¢; corn \$1.85; eggs, trade price 15 dozen; hogs, bulk of sales Denver, \$6.35-\$7.05; oats, \$1.75; sheep, bulk of sales Denver \$16.50; turkeys, not quoted; wheat \$1.60.

H. A. Ireland.

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W E E K L Y R E P O R T S

Of the Offices

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIVV

May 31, 1924.

22

Western Irrigation Agriculture

Scottsbluff

The average maximum temperature for the week ending May 31 has been 59 with a maximum of 77 on the 25th; the average minimum was 41 with a minimum of 38 on the 28th. The week has been ideal- cool and cloudy with some rain every day. The total precipitation for the week was 1.34 inches.

During the week, a considerable amount of miscellaneous work was done. A 24-inch corrugated culvert was put under the driveway and an extension built on the Government structure in order to improve the driveway leading into the farm. Some changes were made in the pastures which required some additional fencing.

Forty rows of potatoes were planted in Field E to be used in a spraying test.

Water was run continuously throughout the week and the alfalfa and sweet clover plats were watered.

James A. Holden.

Yuma

The maximum temperature for the two-week period ending May 24 was 106.5; the minimum, 50; the greatest daily range, 50.5; precipitation, trace.

The hot weather recorded the early part of last week has benefited the growing cotton. Practically all plantings have been made and in most cases thinning has been largely completed. Common labor seems to be plentiful for this sort of work. The quarantine regulations against the foot and mouth disease in California as imposed by the State of Arizona are still in effect with the exception that the Bard and Indian Reservation units are open to pedestrian and vehicular traffic. Shipments of produce, however, are limited to farm products exclusive of livestock shipments.

The gauge reading of the Colorado River at Yuma, Ariz. on May 19 according to the local Weather Bureau office was 22.5 feet with a discharge of about 45,000 second feet. Additional reports indicate that there will be no dangerous flood period this year.

Station work performed during the last two weeks consisted of the harvesting of the third cutting of alfalfa on the rotations and fertilizer plats, threshing barley varieties, thinning and cultivation of cotton on the rotations, repairing irrigation ditches, general irrigation and hoeing.

Messrs. O. F. Cook and H. F. Loomis of the Office of Crop Acclimatization and Adaptation were station visitors May 22, 23, and 24.

E. G. Noble.

Demonstrations on Reclamation ProjectBelle Fourche

During the week ending May 31 the poultry clubs enjoyed a visit from Miss Sutter, poultry specialist from the State College. Miss Sutter took up the killing, picking, and canning of poultry.

Mr. G. Heebink, assistant livestock specialist, from the State College spent four days on the project, three of which were used in conducting tours for three livestock clubs. On Tuesday nineteen members of the Ayrshire Dairy Club climbed into the farm truck loaned through the kindness of Mr. Aune and traveled to Belle Fourche to inspect two dairy farms. The farm of J. E. Lingren has a fine herd of grade Holsteins with complete barn equipment, milking machines, silo, tight ceiling, and patented stanchions. Mr. R. B. Wendelken has a high producing herd of grade Guernseys, with one silo and two others in the course of construction. The dairy barn is light with a concrete floor and also patented stanchions, and drinking cups. At the Wendelken farm Mr. Heebink gave a demonstration in judging. Two short talks were prepared by club members on the early history and importation of Ayrshires into the United States.

On Wednesday and Thursday, two all-day tours were conducted for the sheep and pig clubs. The home of nearly every member was visited and several successful adult breeders were also visited. Judging was given at several places and at the experiment farm, superintendent Aune gave the results of the lamb feeding experiments up to date and Mr. Bober gave some essential facts on hog feeding and judging.

The last two days of the week were spent on the project with two State veterinarians on tuberculosis testing work. It is hoped that all the herds signed up a year and a half ago can be tested this summer or fall. In many cases herds are split with the young stock on the range for the summer.

Frank E. Miller.

Flathead

It was cool and cloudy most of the week ending May 31 with a general rain four hours Wednesday forenoon. More rain is still needed. The ditches are running to capacity in most cases, and the reservoirs are tending to become low in water supply. The mountain snow seems small in amount this year, very little remaining visible.

The Lake County Affiliated Organizations meeting on Thursday took action on a project picnic for July 4th and also decided to foster community fairs and a final county exhibit at Polson. Considerable time was used previous to the meeting, interesting citizens in the county or project exhibition, resulting in a strong Polson delegation, but in a small Ronan delegation to work for the fair at these towns. Unanimous vote placed the fair at Polson this year. As a member of the location committee of the general fair committee, the agriculturist, with the

Flathead (continued)

project engineer (formerly project manager-same duties but a new name under the U. S. I. I. S) visited a number of proposed sites for the project picnic the fourth of July.

Considerable attention and time was also given to the Cow Testing Association, communicating with officials and applicants regarding plans for successor to the cow tester who wishes to resign. Directors meeting was held on Thursday resulting in plans to hire local high school graduate for two months until a promising applicant from Ames, Iowa could report for duty as cow tester. The agriculturist took half a day to instruct and demonstrate milk testing to the temporary tester, and also tested 5 samples of milk for a rancher.

Some work was done filing T. E. 22 forms on tubercular eradication work so as to be able to check with the Helena office on ranchers and the cows tested, number of cattle in the county and in the project, etc.

Eggs are 18 cents a dozen. Butterfat is the same as last week.

L. B. Miller.

Newlands

During the week ending May 24 Mr. Cooley made a visit to the project and reviewed the work that is being carried out as well as the plans for the year. Considerable time was given over during the week to planning a dairy cow feeding experiment in which it is proposed to secure some definite data regarding the results of feeding alfalfa hay alone and without limit to dairy cattle. If it is possible to carry out this experimental work a further effort will be made to carry on experiments with dairy cattle feeding in which alfalfa hay will be supplemented with mixed grass pasture and in which alfalfa hay will be supplemented with grain mixtures.

The feeding of dairy cattle on a straight alfalfa hay ration has been a general practice in parts of the west for a number of years, and now that the dairy cattle of these sections are being more highly developed and the dairy business is assuming greater importance, it is important to know whether or not the present method of feeding dairy cattle is the most economical under our conditions.

It is planned to carry on the proposed experimental work in cooperation with the U. S. Experiment Farm at Fallon, providing the work can be financed.

The principal item of importance during the week ending May 31 was the subject of cattle importation from adjoining counties in California to be shipped into the Newlands Project for feeding purposes during the summer and coming winter. The territory just east of the Sierra Nevada Mountains is at the present time suffering from a severe water shortage and feed is almost exhausted in this grazing territory, and where ample storage has not been provided there will be no cultivated crops harvested. The livestock stockmen in these districts are now seeking feed for their stock in the irrigated valleys of Western Nevada and the foot and mouth quarantine regulations are interfering with this movement of stock. Public sentiment on the Newlands project is divided as to whether this California stock should be permitted to come into the Newlands project,

Newlands (continued)

although these districts in California border on the Nevada line and are farther removed from the infected area than is our own locality.

Upon the suggestion of a number of local live stock owners and the Board of County Commissioners, a trip was made into this district to examine the cattle, which it is proposed to ship in, and to find out if they had contact with other cattle and if they have been under a good fence, and otherwise handled so that there would be no risk in allowing them to come to the Newlands project. While on this trip the state quarantine officer was visited at Reno, Nevada, relative to this matter. The state quarantine officer is in favor of allowing this stock to come into Nevada for feed but a decision by the county officials has not been made yet.

Practically all of the stock will have to be moved from the range country west of this section before winter, in order to avoid heavy losses. These conditions will necessarily increase the price of hay in the Newlands Project and in adjacent irrigated projects. Its effect is already being felt.

L. E. Cline.

North Platte

During the week ending May 31 calves were weighed in 4 calf clubs, pigs were weighed in one pig club and lambs in one lamb club. Members started keeping records in all of these clubs. The livestock clubs are all active now. Interest in club work is unusually good this year.

Mr. Hepperly, state supervisor of livestock clubs, was in the valley the first of the week calling on local leaders and club members.

At the request of the owner a herd of sick hogs was examined near Minatare but no symptoms of cholera were found. Pigs were immunized in two herds in which the sows were treated last fall.

D. H. Propps.

Uncompahgre

A call was received during the week ending May 24 to investigate trouble among young pigs on the farm of a hog raiser near Montrose. A number of purebred gilts had farrowed and while the pigs were normal at birth most of them died within the first week. The sows which were in good condition and were being fairly well fed apparently had no milk. Pigs from grade sows on the same farm were looking well. The gilts which were imported from Missouri were all by the same sire and are very well bred. They will be given another chance..

One day was spent with State Poultry Specialist, Krum visiting demonstration farms, holding meetings, etc. In spite of the busy season an interesting meeting was held in Delta County, Thursday night. In both Montrose and Delta counties, as well as others, selected owners of farm flocks of poultry are conducting demonstrations by keeping records of production, costs, receipts, etc., which they submit to the state office where all records are tabulated and mailed out for comparison to demonstrators and others interested. Later, results will be given publicity.

Uncompahgre (continued)

Mr. Krum was taken to visit a breeder near Delta who contemplates putting in a small commercial hatchery to supply the local demand for baby chicks.

Saturday was County Club Day, a general meeting of all clubs being held. About 150 members and leaders were present. It was decided at this time to have all contests to choose demonstration teams for the State Fair held the last week of August instead of during the local fair, then to have the winning teams give practice demonstrations at the fair.

H. A. Ireland.

MiscellaneousLYSIMETER EXPERIMENTS AT UMATILLA, 1923.

Mr. H. K. Dean has reported on the lysimeter experiments conducted at the Umatilla Experiment Farm in 1923. This detailed report, which is too long to be given here, contains some results of such importance that a brief statements appears to be justified.

There are eight lysimeters in the set. They are constructed of waterproof concrete. Each one is slightly more than 3 feet square and deep enough to hold a six-foot layer of soil. They are so constructed that they any water that percolates through the soil may be collected below.

The first four lysimeters contain soil of a texture known locally as "medium sand", number five contains "fine sand" and number six "coarse sand". These soils are all from the experiment farm and contain almost no silt or clay. Lysimeters numbers seven and number eight contain silt from the bottom lands along the Umatilla River, that in number seven from the vicinity of Stanfield, and that in number eight from the meadows along Butter Creek.

These lysimeters have been under observation for several years, but prior to 1923 only those containing the sand had given any percolate. The quantity of percolate collected from them has been largely influenced by the quantity of water applied and the crop growth. It has been found that with a good stand of alfalfa an irrigation of 3 inches applied once a week during the growing season would support vigorous crop growth and give a substantial quantity of percolate.

With the silt soil, however, this rate of irrigation while apparently adequate to support the crop did not give any percolate. After these lysimeters had become well established, it became desirable to get some percolation through the silt soil. To this end the quantity of irrigation water was increased. In 1922 a total of 115 inches was applied but without getting any percolation. This involved applying 5 inches of water each week during the growing season, which with the rainfall made rather more than 10 feet of water added to six feet of soil.

Miscellaneous (continued)

Table 3/24 Summary of results from Lysimeter experiments.
Umatilla Experiment Farm, 1923.

Lysim- eter No.	Crop	Soil	Water added, inches	Percol- ation, inches	Salts in percolate, # per sq. yard	Yield tons per acre	Water require- ment # water per lb. dry matter
1	Fallow	Medium sand	76.5	61.0	.406	--	---
2	Vetch and soy beans	" "	76.5	31.8	.486	--	---
3	Alfalfa	" "	72.6	9.1	.122	7.9	914
4	Alfalfa, manured	" "	72.9	9.6	.169	8.0	893
5	Alfalfa	Fine sand	72.6	3.7	.098	7.0	1,108
6	Alfalfa	Coarse sand	72.6	18.0	.256	6.0	1,024
7	Alfalfa	Silt	141.6	17.9	2.760	12.2	1,153
8	Alfalfa	Silt	141.6	22.4	.989	12.0	1,126

In 1923 the irrigation of the sandy soil was continued as formerly, using 3 inches each week, while the silt soils were given 6 inches each week, or a total for the irrigation season, including rainfall, of 141.6 inches. This quantity of water appears to have been sufficient to saturate the soil and yield some percolates, about 18 inches from number 7 and nearly 2 feet from number 8.

The accompanying table (Table 3/24) gives the more important data for these lysimeters for 1923. Number 1 containing medium sand took 76.5 inches of water during the year and gave up 61.0 inches containing .406 pound of salt per square yard of area. This lysimeter was not cropped and the loss of water by surface evaporation was 15.5 inches for the year.

Number 2 was cropped during the winter with vetch and during the summer with soy beans. It received during the year 76.5 inches of water and gave up 31.8 inches which contained .486 pound of salt per square yard. The loss of water by evaporation and transpiration was 44.7 inches for the year.

Number 3 was cropped to alfalfa and received during the growing season 72.6 inches of water and gave up 9.1 inches containing .122 pound of salt per square yard. The loss by evaporation and transpiration was 63.5 inches, and the crop yield was at the rate of 7.9 tons per acre, which is equivalent to one pound of dry matter for 914 pounds of water transpired and evaporated.

Number 4 differs from number 3 in having a surface dressing of manure

Miscellaneous (continued)

applied each year. It received 72.9 inches of water and gave up 9.6 inches containing .169 pound of salt. The yield of hay was at the rate of 3.0 tons per acre, and the loss of water by evaporation and transpiration was 61.3 inches, which is equivalent to 893 pounds of water for each pound of dry matter produced.

Number 5 contained fine sand and carried alfalfa. It received 72.6 inches of water and gave up 3.7 inches which contained .098 pound of salt. The yield was at the rate of 7.0 tons per acre, and the loss of water by evaporation and transpiration was 60.9 inches, which is equivalent to 1108 pounds of water for each pound of dry matter.

Number 6 containing coarse sand was also used for alfalfa. It received 72.6 inches of water and gave up 18.0 inches containing .256 pound of salt. The crop yield was at the rate of 6.0 tons per acre, and the loss by evaporation and transpiration was 54.6 inches, which is equivalent to 1024 pounds of water for each pound of dry matter.

The results from these lysimeters afford a basis of comparison for the showing made by the lysimeters containing the silt. It should be remembered that the results given above are considered as normal for those lysimeters, while prior to 1923 the silt soils though heavily irrigated had not been leached.

Number 7 Stanfield silt cropped to alfalfa. It received 141.6 inches of water and gave up 17.9 inches containing 2.76 pounds of salt. The crop yield was at the rate of 12.2 tons per acre, and the water lost by evaporation and transpiration was 123.7 inches, which is equivalent to 1158 pounds of water for each pound of dry matter.

Number 8 contained Butter Creek silt, also in alfalfa. It received 141.6 inches of water and gave up 22.4 inches containing .989 pound of salt. The crop yield was at the rate of 12.0 tons per acre, and the water lost by evaporation and transpiration was 119.2 inches, which is equivalent to 1126 pounds of water for each pound of dry matter.

This table shows a remarkably uniform trend in the water relations involved in the 6 lysimeters used for alfalfa. Number 6, with coarse sand, lets through the largest proportion of the water applied and gives the lowest yield. Numbers 3 and 4, medium sand, lose less water by percolation and give higher yields. There is now very little effect from the use of manure. Number 5, fine sand, loses still less water by percolation and shows a slightly higher water requirement. The two silt soils gave off by evaporation and transpiration about 10 feet of water, which is approximately the quantity applied in 1922 without yielding any percolate. The yields are correspondingly heavy, however, so that the water requirement is practically the same as on the sandy soils.

The salt content of the percolate is reported in Table 3/24 in terms of pounds per square yard of area involved. In order to permit a comparison of the relative concentration of these solutions it is necessary to compute the salt content into terms of parts per million. The results of such computations are given in Table 4/24.

Miscellaneous (continued)

Table 4/24. Showing salt content of percolates from lysimeter experiments, Umatilla Experiment Farm, 1923, expressed in parts per million.

Lysim- eter No.	Crop	Soil	Concentration of percolate
1	Fallow	Medium sand	142
2	Vetch and soy beans	" "	326
3	Alfalfa	" "	286
4	Alfalfa, manured	" "	376
5	Alfalfa	Fine sand	572
6	Alfalfa	Coarse sand	293
7	Alfalfa	Silt	3,173
8	Alfalfa	Silt	910

These results show that except for the silt soils the percolates are not more concentrated than many irrigation waters, and even with lysimeter number 7, the concentration of the percolate is not much higher than that of some irrigation waters used in the southwestern United States.

C. S. S.

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THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

RESEARCH REPORT
ON THE CHEMISTRY OF THE
ATMOSPHERE

BY
J. H. SEARS
AND
J. H. SEARS

CHICAGO, ILLINOIS
1955

1. The first part of the report deals with the general principles of the chemistry of the atmosphere.	1
2. The second part of the report deals with the specific problems of the chemistry of the atmosphere.	2
3. The third part of the report deals with the experimental methods used in the study of the chemistry of the atmosphere.	3
4. The fourth part of the report deals with the results of the experiments and the conclusions drawn therefrom.	4
5. The fifth part of the report deals with the bibliography of the subject.	5
6. The sixth part of the report deals with the index.	6

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILLINOIS
1955

WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

June 7, 1924.

23

Western Irrigation Agriculture

Newlands

The meteorological data recorded at this station for the period May 26 to June 2 follows:

Mean maximum 77.7, maximum 91 on June 1, mean minimum 43.7, minimum 38 on May 30. There was .02 of an inch of rain on May 26.

A comparison of the weather report for May, 1924 with an 18-year average of weather conditions during this month, shows that the past month has been decidedly warmer than the average. The mean maximum recorded was 9 degrees above the average and the mean temperature 6 degrees above the average. The last killing frost occurred May 3. The average date of the last spring frost is May 21, so there is a good chance of having a frost-free period starting some 15 days sooner than usual.

The warm weather of May and the failure of our usual late May frosts to appear have made exceptional growing conditions. The alfalfa is making a fine growth and most probably it will be necessary to cut the first crop some 10 days or more earlier than usual. The cantaloupes are further advanced than at this time in previous years. In all, this season promises to be an exceptional one for earliness and production.

The work at the station has consisted of thinning beets and cultivation of the orchard. The plats C11, 12, and 13 have been disced and seeded to Sudan grass. In the garden, plantings have been made of beans and tomatoes. Some 500 plants of tomatoes are being used in a variety test again this year.

At the high school demonstration plats, there have been seeded six varieties of millet, viz; hog, Japanese, Early Fortune, White Wonder, Pearl and German; also buckwheat, Milo, black amber sorghum, and broom corn.

There has been one irrigation during this period. The plats irrigated were C2 - 13 inc; D1, 4, 5; E1, 2, 3, 4, 7, 8; F1 - 13 inc., with the exception of 13 and 14; all of G, H3 - 16 inc. with the exception of 5 and 16; and V2, 3, 4, 5, and 13.

Newlands (continued)

COMPARATIVE MONTHLY WEATHER REPORT FOR THE MONTH OF MAY, 1924.

	1924	Average for 18 yrs
Temperature, mean maximum	61.8	72.9
" mean minimum	43.8	40.5
" mean	62.8	56.7
" maximum for month	92.0	87.8
" minimum for month	31.0	28.0
Precipitation, inches	.04	.50
Wind Velocity, miles per hour	3.2	4.6
Evaporation, inches	7.4	8.2
Days, clear	25	18.1
" partly cloudy	4	8.3
" cloudy	2	4.6

E. W. Knight.

Demonstrations on Reclamation Projects.Belle Fourche

During the week ending June 7, two State veterinarians tested fourteen dairy herds, getting seven reactors from 359 head. Much of the agriculturist's time for the ^{week} was used in planning this work and notifying the dairymen so the stock could be stanchioned and as little time lost as possible. This project now has three accredited herds, fourteen herds that have passed through one test and twenty herds that will be tested for the first time this fall. Considerable trouble was experienced by cattle being on the range, especially the young stock. After testing this fall it is planned to keep all the young stock on the project farms or these tested cattle can be ranged together on rented land.

Butterfat brought 35¢ until Friday when it dropped to 31¢. One merchant who sells over 2,000 cases of eggs per year is now candling the eggs and buying on grade. This past week he paid 12¢ for second grade and 17¢ for first. This method of buying is proving beneficial and satisfactory to the farmers netting on the average, 90¢ per case above the old method of paying a flat price to all.

Frank E. Miller.

Flathead

There were two days of precipitation during the week of June 7 beginning with an all-day rain on Thursday and then snowing most of Friday, 11 inches of snow being measured on the level. The wet snow and no wind did considerable damage to trees by breaking tops and branches. It is thought this rain and snow will practically insure a good crop of grain this year, judging from a similar experience in 1916.

Flathead (continued)

Monday was used largely in getting a new man started as cow tester for the Lake County Cow Testing Association, the former tester being required to resign on account of work on his farm. A temporary man is doing the work until an experienced tester can report from Ames, Iowa. He has been engaged to commence work August 1.

The Moiese Livestock Boosters Club was organized with 12 pig club and 7 dairy calf club members.

The Fourth of July Project Picnic committee met and took up details of arrangements. This picnic will be the only one for a distance of 75 miles any direction. Plans are being made for 2,000 people. The agriculturist further made tentative arrangements for two ball games and to have the Polson National Guard give a drill, and is attempting to get a speaker of sufficient calibre for the occasion.

Two days were used with the veterinarian in finishing the tuberculin test of the county, the veterinarian leaving Sunday for Helena. Final reports show approximately 14,500 cattle tested and 31 reactors for the entire Lake County.

Some seed corn which had been grown 9 years successfully in the Moiese Valley was secured and distributed to 6 farmers. Five of these were interested at a Holstein Breeders meeting.

Butterfat remains 31 and 35 cents, veal 10 cents, eggs are 18 cents and chickens are bringing 30 cents. Hens are 15 cents.

L. B. Miller.

Minidoka

The week ending May 24 was devoted to dairy matters, principally a survey and enumeration of farms on which to place pure bred bulls.

E. L. LaRue reported the loss of a fine pure bred Holstein cow. Post mortem by Dr. Plank and the agriculturist showed death due to impaction, complicated with mastitis.

J. T. Montgomery.

Shoshone

The week ending May 31 has been cold and windy with three days threatening rain. Small grain and beets are growing slowly. Alfalfa has made a fairly good growth. Several farmers report potatoes rotting in the ground where they were watered heavily soon after planting. Farmers are finishing planting corn and beans. It is estimated that there will be 2,000 acres of beans planted on the project this year. We have distributed inoculation cultures for about 200 acres. These are cultures prepared by the Agronomy Department of the Experiment Station at Ft. Collins.

We are trying to get a carload of hogs together for a cooperative shipment. There are just a few more for sale than the local butchers can use and it is as much trouble to dispose of them as though there were ten times as many. Corn is worth \$1.90 a cwt. and no one wants to put it into 5 cent hogs.

Shoshone (continued)

The week ending June 7 has been cold with a trace of snow on Saturday. All the sheep on the project have been sheared and we had hoped to sell the wool before the middle of June. Some of the buyers have left Cody and the others are not buying much. The best price reported the past week was 35½ cents for about 3,000 fleeces. A meeting of the wool growers on the project was held in the office Saturday night. Most of them would like to sell now but will probably consign unless they can get a better offer than seems probable at the present time.

There has been considerable loss of small turkeys this spring, due in part at least, to cold weather. Posted some on two farms. One of them probably died from blackhead and the others from being chilled.

Met with the Penrose Lamb Club Thursday where one of the farmers was shearing.

O. J. Grace.

Uncompahgre

A trip to Grand Junction was made with County Agent King and Judge Bell a local dairyman, to attend the annual Jersey show and a meeting of Jersey breeders during the week ending May 31. The show was postponed on account of rain and the meeting was poorly attended for the same reason. A cow testing association has just been organized at Grand Junction and some time was spent with County Agent McCann and Mr. Lloyd, the tester who was to begin work June 1. Twenty-six herds are signed up, though some of them are small. Owners are to pay \$1.50 per month regardless of the number of cows up to 20, above which an additional charge per head will be made. The tester will receive \$100 a month with board and lodging furnishing his own transportation.

A trip to Paonia with the North Mesa Pig Club planned for Thursday had to be postponed on account of rain. Two short trips were made but roads were very bad and all unnecessary travel was avoided.

The week's weather has been exceptional. Rain began to fall on Saturday of last week and continued intermittently until Saturday of this week. In general it was of great benefit.

Some time was spent with the secretary of the fair on the premium list.

Markets: No particular changes are to be noted in local markets, alfalfa and eggs being somewhat higher.

Alfalfa	\$10-12 ton
Barley	\$1.65 cwt.
Butterfat	31¢-34¢
Beef cattle,	
top Denver	\$10.25
Chickens,	
hens	12-14¢
spring	30¢

Corn	\$1.85 cwt.
Eggs	17¢ trade
Hogs	top Denver, \$7.25
Oats	\$1.75 cwt.
Sheep	
top Denver	\$13.10
Turkeys	---
Wheat	\$1.60 cwt.

H. A. Ireland.

AVAILABLE WATER IN SAN ANTONIO SOILS.Miscellaneous

In connection with the rotation experiments at San Antonio, observations have been made for a number of years as to the moisture content of the soil. These observations have been made by taking samples of the soil to the depth of 6 feet in one-foot sections, using a soil tube. Duplicate cores have been taken near each end of each plat, making 4 cores per plat. The duplicate cores representing each foot of soil have been placed in soil cans as soon as taken and subsequently dried to constant weight in an air bath at a temperature slightly above the boiling point of water. The soil samples have been weighed before and after drying, and the moisture content or loss in weight computed and reported as a percentage of the dry weight of the soil.

This method of reporting the moisture content of the soil falls short of full usefulness in that it does not show directly either the quantity of water in the soil within the root zone or the quantity of this water that may be regarded as available to plants.

There does not appear to be any standard or generally accepted method for converting figures for percentage of soil moisture into some corresponding quantitative figure such as depth of water in inches. We are accustomed to dealing with the water of rainfall or of irrigation in terms of inches of depth, and it would be clearly advantageous to be able to interpret the conditions of soil moisture in the same terms.

The inherent difficulty in doing this has been the uncertainty as to the density of the soil. For example, if we know the dry weight of a certain volume of soil as it occurs in the field, we could compute accurately the quantity of water involved in any given percentage moisture content. But there are serious practical difficulties in the way of determining the dry weight of the soil in any given volume of moist soil as it exists in the field. Any given mass of soil changes in volume or tends to change in volume with changes in moisture content. As the soil occurs in the field these changes in volume appear to be more pronounced in the surface soil than in the subsoil. They are made obvious by shrinkage cracks that appear when the soil dries out.

In converting the results of soil moisture determinations from percentage figures to inches of water it is necessary to adopt some figure as representing the mass or weight of a certain volume of soil. In the present instance, as applying to the soils at San Antonio, the following weights are used:

<u>Depth in feet</u>	<u>Weight per cubic foot</u>	<u>Conversion factor</u>
0 - 1	82	15.77
1 - 2	87	16.73
2 - 3	89	17.11
3 - 4	91	17.50
4 - 5	91	17.50
5 - 6	91	17.50

Miscellaneous (continued)

In making the computations we multiply the weight of the dry soil in pounds per cubic foot by the percentage of moisture and divide the product by 5.2, which is the weight of one-twelfth of a cubic foot of water. The result is the depth in inches of the water in one cubic foot of soil. It is possible to eliminate one step in this computation using a table in which the weight per cubic foot as divided by 5.2 is set down as a factor. This factor when multiplied by the percentage figure gives the depth of water in inches. The following are the factors for weights from 80 to 99 pounds per cubic foot.

Factors for converting moisture percentage into inches:
Multiply the factor by the moisture percentage to obtain inches of water.

Wt. per cu. ft.	divi- ded by 5.2	Wt. per cu. ft.	divi- ded by 5.2
80	15.33	90	17.31
81	15.58	91	17.50
82	15.77	92	17.69
83	15.96	93	17.88
84	16.15	94	18.08
85	16.35	95	18.27
86	16.54	96	18.46
87	16.73	97	18.65
88	16.92	98	18.84
89	17.11	99	19.03

These conversion factors are given for the weights assumed above for the soils at San Antonio.

We may now consider the application of this method of interpretation to the conditions observed at San Antonio. In response to a request made by the writer, Mr. Ratliffe has examined critically the data on soil moisture conditions in the rotation experiments from 1916 to 1923 inclusive. The purpose of this examination was to arrive at a conclusion as to the maximum water-carrying capacity of the soil and the minimum available moisture. In other words, what was the moisture content when the soil contained all the water it could absorb and hold, and what was the moisture content when crop plants could no longer absorb water from the soil so as to continue growth? The examination took into account the rainfall records and the crop conditions. As a result of this study, Mr. Ratliffe has submitted the figures in the following table:

Miscellaneous (continued)

Table showing the soil moisture percentages representing the estimated "maximum water carrying capacity" and "minimum available moisture" for the six upper feet of 14 rotation plots sampled at San Antonio Experiment Farm, 1916 to 1923 inclusive, by Geo. T. Natliffe.

Plot	West End						East End					
	1st	2nd	3rd	4th	5th	6th	1st	2nd	3rd	4th	5th	6th
	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
M A X I M U M S												
A4-1	:25	:21	:20	:17	:16	:15	:24	:21	:18	:17	:15	:14
A4-2	:25	:22	:20	:17	:16	:16	:25	:22	:19	:18	:17	:16
A4-3	:23	:20	:19	:17	:16	:16	:26	:22	:20	:18	:17	:17
A4-4	:26	:23	:21	:17	:15	:15	:25	:23	:21	:22	:17	:17
A4-5	:25	:21	:19	:15	:15	:14	:25	:22	:20	:18	:17	:15
A4-6	:25	:21	:17	:15	:13	:15	:26	:21	:18	:14	:14	:14
A4-9	:25	:21	:19	:17	:16	:15	:25	:20	:19	:16	:16	:16
A4-10	:25	:22	:19	:17	:16	:16	:25	:22	:19	:16	:16	:16
A6-1	:20	:19	:19	:17	:17	:17	:21	:19	:19	:17	:17	:17
B5-1	:24	:22	:21	:18	:18	:16	:27	:24	:22	:20	:19	:19
B5-3	:25	:22	:20	:18	:17	:17	:25	:22	:20	:20	:20	:18
B5-5	:25	:24	:22	:20	:18	:17	:27	:27	:26	:25	:23	:21
B5-6	:25	:23	:22	:19	:20	:23	:27	:27	:26	:24	:22	:22
B5-8	:22	:21	:20	:19	:19	:19	:26	:23	:18	:20	:17	:18
Mean	:24	:21	:20	:17	:17	:17	:25	:22	:20	:19	:18	:17
M I N I M U M S												
A4-1	:12	:11	:10	:10	:11	:11	:11	:12	:11	:10	:10	:11
A4-2	:10	:12	:11	:9	:9	:9	:10	:12	:12	:10	:10	:10
A4-3	:10	:13	:12	:10	:10	:11	:10	:14	:13	:11	:11	:12
A4-4	:10	:14	:14	:11	:11	:12	:7	:16	:14	:12	:12	:13
A4-5	:13	:14	:12	:9	:9	:10	:13	:13	:12	:8	:9	:9
A4-6	:12	:12	:13	:9	:9	:11	:14	:13	:9	:8	:8	:9
A4-9	:12	:14	:13	:10	:10	:10	:13	:13	:12	:10	:10	:10
A4-10	:10	:12	:11	:9	:9	:9	:10	:12	:12	:9	:9	:10
A6-1	:12	:10	:9	:9	:9	:9	:10	:10	:9	:9	:9	:10
B5-1	:11	:15	:14	:10	:10	:12	:12	:16	:14	:13	:11	:14
B5-3	:9	:12	:11	:9	:9	:9	:10	:12	:11	:10	:9	:10
B5-5	:10	:13	:12	:9	:9	:9	:11	:12	:11	:10	:10	:10
B5-6	:10	:11	:11	:9	:8	:10	:12	:14	:12	:11	:9	:10
B5-8	:10	:11	:11	:9	:9	:10	:11	:12	:12	:10	:9	:10
Mean	:11	:12	:12	:9	:9	:10	:11	:13	:12	:10	:10	:11

Miscellaneous (continued)

For the purpose of the present note it is not necessary to compute the water equivalent of each percentage reported in the table. It is sufficient to deal with the means. These for each foot to the depth of 6 feet and for each plat are given in Table 5/24.

Table 5/24. Showing the water content in depth in inches of each of the upper six feet of soil in certain rotation plats on the San Antonio Experiment Farm at "maximum water-carrying capacity" and when at "minimum available moisture" and also the difference between these or the "available storage capacity."

Depth	<u>West End</u>			::	<u>East End</u>		
	Maximum	Minimum	Storage		Maximum	Minimum	Storage
0 - 1	3.79	1.73	2.06	::	3.95	1.73	2.22
1 - 2	3.51	2.01	1.50	::	3.68	2.17	1.51
2 - 3	3.42	2.05	1.37	::	3.42	2.05	1.37
3 - 4	2.98	1.57	1.41	::	3.33	1.75	1.58
4 - 5	2.98	1.57	1.41	::	3.15	1.75	1.40
5 - 6	2.98	1.75	1.23	::	2.98	1.92	1.06
Totals	19.63	10.68	8.98	::	20.51	11.37	9.14
:	:	:	:	::	:	:	:

This table shows that these San Antonio soils are capable of holding in the upper six feet about 20 inches of water and of withholding from crop plants about 11 inches. In other words, this soil is capable of storing about 9 inches of water within what may be called the root zone or an average of 1.5 inches per foot of depth.

C. S. S.

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Western Irrigation Agriculture

Huntley

The maximum temperature for the week ending June 7 was 77, minimum 40, and precipitation 1.06 inches.

Following a period of drought of nearly one month, the rainfall of over 1 inch was of much benefit to crops. The season is very late and backward and crop conditions rather unfavorable. Frost occurred as late as May 29 and serious damage resulted to early planted beans of which there is a comparatively large acreage in the Yellowstone Valley. Sugar beet thinning is fairly well begun. Loss of beet stands is reported from several sections due to black root and insect injury.

Station field work during the week included ditching, irrigating alfalfa and pastures, and thinning beets.

The maximum temperature for the week ending June 14 was 82, minimum 35, and precipitation .40 inch.

Favorable weather conditions during the week, with higher temperatures following the recent rains, has made some improvement in crop conditions, although crops are late and a short growing season is already in prospect.

Sugar beet thinning is fairly well advanced. The first crop of alfalfa will probably be light due to the late frosts and cool spring.

On June 9, a livestock inspection tour of the project was conducted by the County Agent. On this tour, about 60 project farmers visited farms where herds of dairy cattle, hogs and farm flocks of sheep are being successfully kept. The tour included also a visit to the experiment farm and inspection of the dairy cattle and hogs and irrigated pastures.

On the following day about 50 dairy farmers and their families visited the experiment farm. Following a picnic lunch on the station grounds, these farmers spent the afternoon in inspecting the station dairy herd and the irrigated pastures. They also visited the farm of E. T. McDermond, near Huntley, who has an excellent herd of purebred Holstein cattle. Mr. McDermond was one of the first men to obtain one of the Holstein bulls loaned by the station and has had three of these bulls.

Dan Hansen.

1885

1885

1885

1885

1885

1885

Newlands

The meteorological data recorded at this station for the period June 2 to June 9 follows:

Mean maximum 85.6, maximum 97 on the 3rd., mean minimum 47.0, minimum 37 on the 7th. There was a trace of rain on the third.

The work at the station during this period has consisted of cultivating corn and beets, work in the garden, cleaning the ditches of weeds, and trimming the hedges about the office premises.

The corn, sorghum and millet plats on the high school tract were cultivated. These crops are making a fair growth and it will not be long before they will be ready for exhibition purposes.

F. B. Headley.

Demonstrations on Reclamation Projects.Belle Fourche

During the week ending June 14 two club meetings were held, one "balanced agriculture" meeting, the annual farm bureau picnic, and three committee meetings. One article was prepared for publication on the tuberculin testing of cattle. Serum and virus for cholera vaccination was ordered and delivered to one farmer.

The balanced Agriculture Day program was held in Newell on Thursday. Four extension speakers from the State College gave addresses and demonstrations. Mr. C. L. Starr spoke on, "Balanced Agriculture for Permanent Prosperity." Dr. G. S. Weaver gave a very practical talk on "Animal Disease Control and Farm Sanitation". Mr. Turner Wright used charts emphasizing his talk, "Livestock a Prime Factor in a Well-Balanced Farm Program." Miss Clara M. Sutter graded a case of eggs from a farm and spoke on "Poultry for Profit or What?" Singing and motion pictures were also on the program.

The Farm Bureau Picnic was held at the Nisland fairgrounds on Friday with a large, enthusiastic attendance. A picnic lunch was held at noon, followed by community singing and the annual business meeting. Mr. W. F. Schilling of Minnesota spoke from his own experience on, "Cooperative Organization". This talk was followed by vaudeville acts; three communities taking part. A varied sports program followed. In the evening a big Get-Together Bowery Dance was held.

Frank E. Miller.

Minidoka

The farmer's greatest interest in the operations of the week ending May 31 was in the possible shortage of water. The project manager, the county agent and the agriculturist met and formed a tentative program for a public meeting which was held in Burley on Saturday. Problems affecting individual farmers in handling their crops with less than a normal supply of water were discussed and the best methods of using the water were outlined and discussed by the farmers. The meeting was successful in that it developed a very

Minidoka (continued)

friendly feeling and showed an optimistic frame of mind among farmers even though they would be obliged to get along with less than the usual amount of water.

One day was spent on a neighboring project in inspecting dairy cattle whose owners want to sell them on the Minidoka project. Shortage of water on neighboring projects they believe will make it necessary for them to sell parts of their herds.

J. T. Montgomery.

Newlands

During the week ending June 7 some time was spent finishing up the herd testing work for the month of May and getting out the report. A summary of this testing report shows that seven hundred and fifty-three cows representing fifty-three herds were tested and that the average production was 792 pounds of milk containing 29.7 pounds of fat per cow. One hundred and forty cows on test produced forty pounds or more of butter fat per month and sixty cows produced over fifty pounds of butter fat. Ten new herds were added to the association during May. During the week a meeting was held with the County Commissioners to determine what should be done with the question of allowing cattle from the California-Nevada State line to come into this county for feeding purposes. After a thorough discussion on the subject, the commissioners failed to make a decision at this meeting and decided to wait for further developments.

On Saturday of the week a state inspector from California found alfalfa weevil on the Swingle Bench and at Hazen.

It is anticipated that the finding of weevil on the project this year will automatically quarantine our hay out of California, though this step has not yet been taken. In case we are quarantined the next move will be to attract outside cattle and to do this it will be necessary for the county commissioners to remove the foot and mouth quarantine restrictions on nearby cattle. It is generally conceded that this can be done with safety. The project farmers having surplus hay to sell this year should not suffer for a market on account of the demand for hay by outside cattlemen who desire to slip their stock into Fallon.

L. E. Cline.

North Platte

During the week ending June 14 pigs were given the double treatment in 2 herds where the sows were already immune, and one entire herd was immunized. No new cases of cholera were reported.

Some time was devoted to club work. Several members were visited and dates for club meetings arranged. All of the clubs have sent in reports for the first month's work and interest is good. During the last half of the week a conference of Reclamation officials and others was attended at Denver. Mr. Holden, superintendent of the Experiment Farm and Mr. Weiss, Project Manager, also attended the conference.

D. H. Propps.

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W E E K L Y R E P O R T S

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXIV

June 21, 1924.

25

Western Irrigation Agriculture

Huntley

The maximum temperature for the week ending June 21 was 84, minimum 43, and precipitation .69 inch.

Frequent showers that totaled .69 inch during the week were of much benefit to all crops, and resulted especially in improvement of the condition of the sugar beet crop. Weather conditions have been excellent for grains on dry lands and good yields of winter wheat are in prospect.

Some damage to crops by grasshoppers is reported from some sections of the project although this pest is so far much less troublesome than during the past two or three years. Materials for poisoning grasshoppers, (excepting bran) are furnished by the County and a quantity of this material is stored at the experiment farm for local distribution.

Station work included cultivating corn and potatoes, ditching for irrigation, and repair work to fences and buildings.

Dan Hansen

Newlands

The meteorological data recorded at this station for the period June 9 to June 16 follows:

Mean maximum 85, maximum 87 on the 14th and 15th; mean minimum 45.1, minimum 40 on the 13th. Precipitation, none.

The work at the station has consisted of cultivating corn and beets, and cutting alfalfa. Haying this year is about ten days earlier than usual due to the exceptional early spring and the warm weather for May.

There has been one irrigation given. The plats irrigated were: C 2-13 inclusive, D4, F4 and 16, H17, 18, 19, and Y6-13 inclusive.

F. B. Headley.

Demonstrations on Reclamation Projects.

Belle Fourche

For the week ending June 21 three club meetings were held at which stock was judged, caponizing performed, and the worming of hogs demonstrated. The club members are greatly interested in judging work and we now plan to have several judging teams that can put on judging demonstrations for the county fair and the various community gatherings during the summer. The

THE UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS

DECEMBER 10, 1900

TO

THE PRESIDENT OF THE UNIVERSITY OF CHICAGO

My dear Sir:

I have the honor to acknowledge the receipt of your letter of the 8th inst.

and in reply to inform you that the same has been forwarded to the proper authorities for their consideration. I am sorry that I cannot give you a more definite answer at this time, but the matter is being handled as quickly as possible. I am, Sir, very respectfully,
Yours truly,
[Signature]

[Signature]

[Signature]

I am, Sir, very respectfully,
Yours truly,
[Signature]

[Signature]

Very truly yours,

[Signature]

I am, Sir, very respectfully,
Yours truly,
[Signature]

Belle Fourche

Ayrshire Breeders trophy, a beautiful cup, standing 16 inches high, was received. This cup goes to the winning members of the Ayrshire club. A dairy window display emphasizing the Ayrshire breed is planned. The cup and the picture of each member of the club with his or her animal will be the principal attraction.

Three articles were prepared for publication and a number of calls made in the interest of accredited-herd work.

Butterfat was quoted at 32 cents on Saturday. Eggs brought 14 and 15 cents at several places where candling and grading is not performed. One merchant who grades his eggs is paying from 16 to 21 cents for eggs. His business is increasing and the quality improving.

Frank E. Miller.

Flathead

The weather has been cool and showery except the last two days of the week ending June 14 during which showers continued but temperature increased considerably with the result that crops made rapid growth. The precipitation of the preceeding week was extremely beneficial, and the grain crops look very promising as a result. Indications are that the first crop of alfalfa will yield less than normal.

The Project and Lake County Fair received attention during the week; an executive committee meeting being held and plans made for cooperating to the fullest extent with the several committees and to encourage local exhibits. The agriculturist was named field superintendent of the fair after declining the office of secretary, feeling that more people would be actively interested by having someone in Polson be secretary while the agriculturist worked with the communities on the project. Two communities decided at meetings Saturday evening to have local exhibits preceeding the Polson fair. These have not had local exhibits previously. Four other communities have also decided to continue local exhibits in accord with the plan.

A day was used in connection with the monthly report of the Cow Testing Association, assisting the new tester in the work. The leading herd averaged 50.37 pounds fat for 7 cows, the highest record in the association. The 336 cows tested averaged over a pound a day fat, producing 31.36 pounds for the month. Over 40 pounds of fat were produced by 65 of the cows. The record cows were grade Holsteins producing 84.63 and 80.7 pounds fat. The temporary tester is proving very satisfactory in view of his training for the work. He will be replaced August 1 by an experienced man.

Arrangements were completed to get one Red Poll heifer calf for a club member, and negotiations for financial assistance are under way for a pure-bred Holstein calf for another club member.

Butterfat increased two cents to 33 and 35 cents. Eggs are as before.

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Flathead (continued)

For the week ending June 21 the crops appeared in very good condition due to the precipitation of the last several weeks. The cold weather has delayed the corn considerably. Some alfalfa cutting has been done, but the majority do not plan to begin haying until the following week. The rather frequent showers have made haying a bit hazardous.

Considerable attention was given the Project Picnic to be held the Fourth of July along the Mission Range near Ronan. Plans are under way for 2,000 people. The Lake County Affiliated Organizations are responsible for this picnic. The agriculturist has served as a member of the Picnic committee and made a number of calls and had interviews regarding the matter.

Some time was also used in interesting local club officers and members in local exhibits, and in conference with other officers of the County Fair regarding plans.

Two Dairy and one Pig Club meetings were attended, also a Guernsey Breeders and a Farm Bureau meeting. At the latter meeting, Mrs. Miller presented Child Welfare work in the interest of securing a County Nurse. Response was excellent. Petitions to get the matter on the ballot are being circulated.

Preliminary work has been done on the Dairy or Farm tours to be conducted July 14 and 15. A tentative itinerary has been planned. Letters were sent out to delegates and members of local fair committees announcing the meeting of the Lake County Affiliated Organization on the 25th.

Butterfat is selling at 35 and 37 cents cast and one cent higher in trade. Eggs are as before.

L. B. Miller.

Minidoka

The event of greatest interest for the week ending June 7 was the visit to Burley and Rupert on the 5th and 6th of the Idaho Poultry Demonstration Train. This train was equipped and run by the Oregon Shortline Railway Company and the demonstration material was the work of the University of Idaho. Mr. Pren Moore of the Extension Department had charge for the University and Mr. Joel Priest of the Short Line for the railway company. Model houses large enough to show all construction, interior and exterior, and furnishings were built and placed on flat cars by the Boise Payette Lumber Company. Then flocks of choice birds were carried, methods of feeding and brooding and the packing and marketing of eggs were demonstrated. Good crowds were in attendance all along the way. The train toured Idaho and Utah. The number of people who visited the train, heard the lectures and examined the exhibits, showed very plainly that the interest in poultry is still maintained.

A successful tour by the Calf Club members was carried out on Friday. Mr. Wm. Bolen, County Agent Barber and the agriculturist accompanied the boys and girls from farm to farm, conducted the judging contests and explained the breeding operations of the farms visited. Farmers gave the children a warm reception and showed them about most willingly. The children profited by the test work and interest in the club was stimulated.

Minidoka (continued)

The agriculturist assisted a farmer on the project in selecting some pure bred Guernsey cattle for use on his farm. These cattle will doubtless prove a desirable addition to our dairy stock.

The agriculturist's time was largely taken up by farm visits on dairy and hog matters during the week ending June 14.

Cheese factories in the vicinity have had a great deal of trouble with (gassy) cheese. This difficulty is attributed by cheese makers to lack of proper cleanliness in handling the milk.

Plans were made for a farmers' picnic to be held in Burley July 3. Part of the program was arranged. Committees for entertainment and the balance of the program were appointed. The Burley and Rupert Rotary Clubs are cooperating with the Holstein Friesian Association to make this an interesting Black and White Day.

Animal health continues excellent. Feed prospects are fair. The first cutting of alfalfa on parts of the project will be somewhat short. Weevils have done some damage - grasshoppers a little. Corn looks fine and the acreage is materially increased. The sugar beet prospect is not so good at this time as we hoped because farmers were unable to get the beets irrigated up in full stand.

J. T. Montgomery.

Newlands

Mr Cline reports as follows for the week ending June 14:

The principal item of interest for the past two weeks has been the alfalfa weevil situation, and speculation as to what action the state of California will take in regard to quarantine measures against this project. Since the finding of weevil on the project, a delegation of farmers and merchants made a trip to Sacramento to interview the California quarantine officials, with the hope that nothing more than a modified quarantine would be placed on Churchill County, which would permit the exportation of hay into California from the greater part of the project. At the time of the conference no definite decision was reached, and up to date no word has been received concerning any quarantine, although it has been intimated that a quarantine might be placed on the whole of Churchill County. The hay growers of the project, who have been depending on the sale of hay in California are very much concerned as are also some of the merchants who do a large business in the marketing of hay. If hay cannot be sent to California this year, it will be necessary to ship in cattle sufficient in numbers to consume about twenty thousand tons of hay.

An article was prepared for the local press on the subject of "Turkey Production and Combatting Black Head in Turkeys". An article was also prepared on the report of the Cow Testing Association for May.

Newlands (continued)

The suspense of the Newland's Project hay growers with reference to the alfalfa weevil quarantine has at last been relieved. On the 19th of the the week ending June 21, official notice was received from California that all Churchill County was quarantined from shipping alfalfa hay into California. There has been some movement on the part of California stockmen since the quarantine was placed to have it modified so that shipments might be made from parts of Churchill County, where weevil has not been found. California stockmen say that unless feed can be brought in from outside of California, there will be much distress and suffering among the stock this winter. It is expected that the feed shortage in California will have some effect on the quarantine. A re-survey by California officials is expected before any modifications are made.

Two days were spent during the week in conference with Reclamation officials at Reno, Nevada, where matters pertaining to an extension of the Newlands Project were taken up. This proposed extension is of special interest to some of the present project farmers, because they hope to receive additional water under the proposed Spanish Springs storage. At this meeting, committees were appointed to make a soils survey and place valuations on the land, and also to determine the number of irrigable acres that might profitably be included. These findings will be presented to Congress at the next session.

Hay harvest is well under way, and the yield will be excellent. Harvest help is plentiful at \$2.50 to \$3.00 per day and board. This office is able to be of considerable help in supplying harvest help to the ranchers. A large proportion of the harvest help consists of tourist parties, who are working their way back from California to their homes in the east.

L. E. Cline.

Shoshone

The week ending June 14 has been warm and crops are growing rapidly. Some fields of early planted beans will be replanted as there is not over 10 per cent of a stand. Adult potato bugs are numerous and it will be necessary to start spraying early.

The agriculturist assisted in seeding a grass pasture with a mixture recommended by the University of Wyoming. This pasture is on the state highway near Garland and I hope will be of considerable value as a demonstration.

I assisted one farmer to inoculate his beans. When his neighbors told him of treating beans he got the impression that the treatment was similar to treating potatoes with corrosive sublimate and wanted a little assistance and information.

There are still some losses in turkeys but they are doing better since the weather warmed up. Many of the hens were late in starting to lay and there will be quite a large number hatched this month.

Shoshone (continued)

The weather has been warm with a good rain Wednesday of the week ending June 21, the first of this season. The first cutting of alfalfa will start next week. Beets, corn, and beans are growing very slowly.

I drove to Meeteetse with one of the heaviest sheep feeders of the project Monday hoping to see some of the old ewes that would be for sale this fall with their wool on. Many of the larger sheep outfits have contracted their old ewes for fall delivery at \$5.00 per head. There are still some ewes in the smaller flocks to be sold. Shearing will be soon finished but very little wool is being sold now. Buyers are offering 32 cents for some of the larger clips. Several small clips on the project have been sold at 30 cents.

Twenty-nine wool growers on the project having clips varying from 132 to 2,300 pounds are consigning a carload to a Boston wool commission firm. I have spent most of the week trying to notify them of the meeting held in this office Tuesday evening and keeping them posted on the offers made.

Three club members, two girls and one boy, left for Laramie to attend Club Week at the State University. The two girls were members of sewing clubs and the boy was a member of a poultry club.

O. J. Grace.

W E E K L Y R E P O R T S
Of the Offices of
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And
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Vol. XXIV

June 28, 1924.

26

Western Irrigation Agriculture

Newlands

The meteorological data recorded at this station for the period ending June 23 follows:

Mean maximum 83.6, maximum 92 on the 21st and 22nd, mean minimum 40.4, minimum 32 on the 19th. Precipitation none.

The minimum temperature of 32 on the 19th resulted in some melon vines being frosted. Those vines killed amounted to a very small percentage of the total acreage. At the station the only vines that were damaged were some field pumpkins and squash.

The work at the station consisted of cultivating corn and beets and haying. The first crop of alfalfa has been cut and the most of it is in the stack.

There has been one irrigation given. The plats irrigated were C4 to 10 inclusive, E2, 5, 6, and D8.

E. W. Knight.

Scottsbluff

The average maximum temperature for the week ending June 14 was 82 with a maximum of 93 on the 14th; the average minimum for the period was 48 with a minimum of 36 on the 9th. The precipitation was 0.21 inch.

During the week irrigation of pastures in Fields B and E and the alfalfa and sweet clover plats in Field K were completed and the water ordered off.

The rye plat in Rotation 27 was plowed and prepared for the planting of potatoes and the plats in Rotations 26, 31, 61, 20, 40, 30, 60, 44, 24 and 64 in Field K were planted.

The beets in Fields A and D were cultivated in preparation for blocking and thinning.

The superintendent spent the latter part of the week in Denver attending a conference called by the Commissioner of Reclamation, Dr. Elwood Mead.

The average maximum temperature for the week ending June 21 was 84 with a maximum of 97 on the 18th; the average minimum was 50 with a minimum of 39 on the 19th and 20th. There was a light shower measuring .06 inch on the 19th. The season has been very dry. Since April 1, the precipitation has amounted to only 3.29 inches as against an average for the same period for 12 years of 6.60 inches. Notwithstanding this, crops are looking fairly well.

Scottsbluff (continued)

Beets are late and the stand is not the best, but they, with other crops, have been able to utilize all the moisture and are making good growth. The irrigation of small grain is commencing.

The beet plats in Fields A and D were blocked and thinned during the week and all of the corn, beets and potato plats were cultivated. The alfalfa in Fields A, D and H and the barley and sweet clover in C were irrigated. The alfalfa in the roadways in Field K was cut and the plats trimmed.

James A. Holden.

Demonstrations on Reclamation ProjectsBelle Fourche

For the week ending June 28 milk samples were collected from four herds and test run. Milk production sheets and books were furnished three farmers. Milk scales were ordered for one dairyman.

Three club meetings were held during the week. At two meetings judging of livestock was conducted.

State veterinarian, J. P. Niederauer, was again on the project making tuberculin tests of dairy cattle. Seven head of reactors, previously tested, were slaughtered. Tuberculin lesions were very prominent in two of the carcasses. Three more dairymen signed accredited-herd agreements.

Butterfat remains at 34 cents per pound. Ungraded eggs bring 15 cents per dozen. No. 1 graded eggs are worth 21 cents and No. 2 graded eggs 16 cents per dozen.

Frank E. Miller.

Minidoka

The most of the agriculturist's time for the week ending June 21 was spent on dairy matters. A sale of cattle belonging to a farmer on the North Side Twin Falls Project was planned for Monday, June 23 at Rupert. These are excellent animals and will be an addition to the good stock of the project.

Some time was devoted to farm visits on dairy matters and in connection with some suspected contagious abortion. It is planned to run blood tests on the suspected animals as soon as these tests can be arranged for.

One day was spent in conference with the Federal Reserve Agent and inspecting a couple of herds that will probably be for sale later. The interest in dairy cattle keeps up very well. Local sales, while at slightly decreased figures, still remain good. Good grade Holsteins are commanding \$85.00 to \$100.00; Jerseys \$75.00 to \$85.00; heifers and cows that are not very good producers at varying figures from \$50.00 to \$75.00.

Farmers are suffering considerable losses in poultry from depredations of coyotes and skunks. The agriculturist spent considerable time in some poisoning experiments with these hoping to find a satisfactory means of combatting these losses.

Minidoka (continued)

Butterfat and egg prices have reacted favorably this past week, the latter bringing twenty-eight cents and eggs as high as twenty cents. The first cutting of alfalfa hay is pretty well finished, considerably damaged by weevil and in some localities by grasshoppers. South Side farmers are using poison for the grasshoppers and experimental sprayings are made on the North Side for weevil. No actual weighings or check has been made but farmers are satisfied that they are saving one-fourth to one-third of their hay crop on badly infested fields with spray consisting of two pounds of calcium arsenite to the acre.

J. T. Montgomery.

North Platte

Practically the entire week ending June 21 was devoted to boys and girls livestock clubs. About 30 club members were visited and 4 meetings were held. Interest in the work is better than last year and the pigs and calves are all doing well.

Miscellaneous work included culling, caponizing and some disease work. Loss of young chickens has been quite heavy on the project this year. Some white diarrhoea has been reported but most of the trouble seems to be due to the cool, unfavorable weather.

D. H. Propps.

Shoshone

A few farmers started cutting alfalfa during the week ending June 28. Very little bloom is showing yet but they are anxious to get it up before they irrigate their beets and potatoes.

I examined several fields of potatoes where they had failed to get a stand. Several fields had been replanted. One field did not have over 50 per cent of a stand. The loss of stand was due almost entirely to blackleg and rhizoctonia. So heavy a loss seems to be rather unusual and may have been partially due to the cold spring.

Milk samples were collected and tested from the six herds using the Government bulls.

About half the week has been spent in collecting and loading the cooperative wool shipment. Thirty-one farmers consigned 28,581 pounds which was nearly all the wool produced by the small sheep men on the project last year. The amounts consigned varied from one fleece to 400.

O. J. Grace.

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1. The first part of the report is devoted to a general description of the project and its objectives. It is followed by a detailed account of the methods used in the study, including the selection of subjects and the procedures for data collection and analysis. The results of the study are then presented in a series of tables and figures, which are accompanied by a discussion of their significance and implications. Finally, the report concludes with a summary of the findings and a list of references.

2. The second part of the report is devoted to a detailed description of the results of the study. It begins with a summary of the findings, which are then presented in a series of tables and figures. The results are then discussed in a series of paragraphs, which are organized into sections corresponding to the different aspects of the study. The discussion includes a comparison of the results with those of previous studies and a consideration of the implications of the findings for future research.

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